Vetria L. Byrd, PhD
Associate Professor | Associate Department Head
Byrd Data Visualization Lab, Director
Computer Graphics Technology | KNOY Hall of Technology,
Purdue University, West Lafayette, IN 47907
Phone: (765) 494-6335
ORCID 0000-0002-0733-2062
vbyrd@purdue.edu

ACADEMIC APPOINTMENTS

2023	Associate Department Head, Computer Graphics Technology, Polytechnic Institute, Purdue University.
2022	Associate Professor, Computer Graphics Technology, Polytechnic Institute, Purdue University, West Lafayette, Indiana.
2015 – 2022	Assistant Professor, Department of Computer Graphics Technology, Polytechnic Institute, Purdue University, West Lafayette, Indiana.
2011 – 2015	Research Associate, Visualization Scientist, Director of Advanced Visualization Division, Clemson Computing & Information Technology/Cyberinfrastructure Technology Integration Department.
2011	Professor, Jefferson State Community College, Department of Computer Science, Shelby Campus, Birmingham, Alabama.
2008	Graduate Level Co-op, IBM T. J. Watson Research Center, Functional Genomics and Systems Biology Research Group, Yorktown Heights, New York.
2006 – 2010	Research Assistant of Computer and Information Sciences, School of Natural Science and Mathematics, University of Alabama at Birmingham, Birmingham, Alabama.

PROFESSIONAL PREPARATION

2010	University of Alabama at Birmingham, Birmingham, Alabama Doctor of Philosophy in Computing and Information Sciences Title: A Multiresolution Approach to the Detection of Image Discrepancies for Improved Quality Control of Microarray Oligonucleotide Images Dissertation Committee Chair: Anthony Skjellum, Ph.D. Research Advisor/Mentor: Kenneth R. Sloan, Ph.D.
2006	University of Alabama at Birmingham, Birmingham, Alabama Master of Science in Computing and Information Sciences Advisor: Anthony Skjellum, Ph.D.
1995	University of Alabama at Birmingham, Birmingham, Alabama Master of Science in Biomedical Engineering Title: Medical Digital Subtraction Radiography in Dentistry Academic Advisor: Donald B. Twieg, Ph.D. Research Advisor/Mentor: Marjorie K. Jeffcoat, PhD.
1992	University of Alabama at Birmingham, Birmingham, Alabama Bachelor of Science in Computing and Information Sciences, Minor: Business

FUNDING AND GRANTS   **Total Funding: $16,198,939.24**   **Byrd Share: $1,024,348.74**

External Grants Awarded

Byrd, V. L. (sub-award co-PI), HDR Institute: Geospatial Institute for Digital Innovation to Enhance Resilience and Sustainability, University of Illinois at Champaign-Urbana, National Science Foundation Award #2118329. October 1, 2021 - September 30, 2026.
Award Amount: $15M, Subaward to Purdue University: $2,450,000   Byrd Share: $294,000

Moss, K., Byrd, V. (Co-PI), Visionary Grant: Gesture-Manipulated 3D Network Maps for Tracking, Assessment, and Reflection Opportunities in Digital Non-linear Adaptive Learning Systems, Gordon Research Conference/NASA, September 6, 2015 – September 6, 2017.
Award Amount: $4,000.   Byrd Share: $2,000

Byrd, V. L. (PI), REU SITE: Research Experience for Undergraduates in Collaborative Data Visualization Applications, Clemson University, National Science Foundation, January 15, 2014 – January 15, 2017, NSF Award No. 1359223. Award Amount: $265,988   Byrd Share: $265,988

Thatcher, J., Burton, O., Appleford, S., Byrd, V. L., (Co-PI), EAGER: Social Web Election Listening for Learning, Clemson University, National Science Foundation, Award No. 1247198, September 1, 2012 – August 31, 2014. Award Amount: $262,654   Byrd Share: $65,663.50

Internal Grants Awarded in Support of Research and Discovery

Byrd, V. L. (PI), Ross-Lynn Summer Supplement Award - PRF Graduate Fellowship Grant to support graduate student research associate, FY22, Fall 2021 and Spring 2022, Purdue Polytechnic Institute, Purdue University. Award Amount: $31,684   Byrd Share: $31,684

Byrd, V. L. (PI), Office of Undergraduate Research Scholar Faculty Award, Purdue Polytechnic Institute, Spring 2018. Award Amount: $1,000   Byrd Share: $1,000

Byrd, V. L. (PI), Education Workforce Development Grant, Indiana Next Generation Manufacturing Competitiveness Center (INMaC), August 14, 2018 – December 05, 2018.
Award Amount: $13,252.16   Byrd Share: $13,252.16

Byrd, V. L. (PI), Education Workforce Development Grant, Indiana Next Generation Manufacturing Competitiveness Center (INMaC), January 05, 2019 – May 06, 2019.
Award Amount: $13,252.16   Byrd Share: $13,252.16

Byrd, V. L. (PI), Education Workforce Development Grant, Indiana Next Generation Manufacturing Competitiveness Center (INMaC), August 12, 2019 – December 08, 2019.
Award Amount: $13,252.16   Byrd Share: $13,252.16

Byrd, V. L. (PI), Education Workforce Development Grant, Indiana Next Generation Manufacturing Competitiveness Center (INMaC), January 06, 2020 – May 08, 2020.
Award Amount: $13,252.16   Byrd Share: $13,252.16

Byrd, V. L. (PI), 2018 Summer PRF Faculty Research Grant, Purdue Polytechnic Institute, June 1, 2018 – July 31, 2018. Award Amount: $10,4000   Byrd Share: $10,4000

Byrd, V. L. (PI), Collaborative Interdisciplinary Machine Learning Research Infrastructure, Purdue

Polytechnic Institute Realizing the Digital Enterprise IMPACT Area Grant, April 1, 2018 – June 30, 2018. Award Amount: $8,000   Byrd Share: $8,000

Byrd, V. L. (PI), Donation to Facilitate Discovery from Professor Melissa Dark, Purdue University, December 2016. Award Amount: $15,000   Byrd Share: $15,000

Byrd, V. L. (PI), Post-doc Award Competition, Purdue Polytechnic Institute, August 2016 – Spring 2019. Award Amount: $100,000   Byrd Share: $50,000

Byrd, V. L. (PI), 2016 Summer Salary Support, Purdue Polytechnic Institute, May 2016. Award Amount: $5,800.44   Byrd Share: $5,800.44

Grants Awarded in Support of Teaching and Learning

Byrd, V. L. (PI), and Asunda, P., Building STEM Capacity for Data Visualization, Problem-solving and Critical thinking, Polytechnic High School Collaborative Grant. June 2023 – May 2025. Award amount: $50,000   Byrd Share: $43,000

Byrd, V.L. (PI), Data Mine Data Visualization Initiative, Office of the Provost, Purdue University, August 1, 2019 – May 31, 2020. Award Amount: $13,252.16.   Byrd Share: $13,252.16

Byrd, V.L. (PI), IMPACT Course Redesign, Purdue University, January 2017 – May 2019. Award Amount: $5,000   Byrd Share: $5,000

Byrd, V. L. (PI), CSoI Critical Data Visualization Workshop, 3-weeks summer salary, Purdue Center for Science Information, May 2019 – June 2019. Award Amount: $9,789   Byrd Share: $9,789

Byrd, V. L. (PI), Data Visualization for Societal Problems, Polytechnic Transformation Grant, March 2017 – April 2018. Award Amount: $4,000   Byrd Share: $4,000

Byrd, V.L. (PI), Introduction to Digital Scholarship Innovate Grant, Purdue College of Liberal Arts, March 2017 – April 2018. Award Amount: $20,000   Byrd Share: $5,000

Byrd, V. L. (PI), Using Evidence-based Practices and Learning to Enhance Critical Thinking Skills in Students through Data Visualization, Purdue Polytechnic Institute Future Work and Learning Research Impact Area Grant, May 15, 2019 – August 30, 2021.
Award Amount: $4,800   Byrd Share: $4,800

Byrd, V. L. (PI), Data Visualization for All: Developing Accessible Design Worksheets for Data Visualization, Purdue Polytechnic Institute Health and Sustainable Communities, May 15, 2019 – June 20, 2019. Award Amount: $1,760   Byrd Share: $1,760

Byrd, V. L. (PI), Raspberry PI Funding, Purdue Polytechnic Institute, Spring 2016. Award Amount: $7,650   Byrd Share: $3,825

External Grants and Contracts Awarded in Support of Engagement

Byrd, V. L. (PI), Broadening Participation in Visualization (BPViz), Computing Research Association, February 17, 2017 – July 2018. Award Amount: $18,000   Byrd Share: $18,000

Byrd, V. L. (PI), Broadening Participation in Visualization (BPViz), Computing Research Association,

August 15, 2015 – December 15, 2016. Award Amount: $18,000   Byrd Share: $18,000

Byrd, V. L. (PI), Broadening Participation in Visualization (BPViz), National Science Foundation Award No. 1636452, September 22, 2015 – January 31, 2017. Award Amount: $17,378 Byrd Share: $17,378

Byrd, V. L. (Co-PI), Educating Skillful Visualizers National Aeronautics and Space Administration, (NASA), Participant support for 2019 BPViz Pre-Conference Workshop and Gordon Research Conference on Visualization in Science and Education.
Award Amount: $197,600   (100% Participant Support)   Byrd Share: $0

Byrd, V. L. (PI), Tanner, L., Cox, D. 2nd Annual CRA-W/CDC Broadening Participation in Visualization Workshop, CRA-W/CDC, July 15, 2014 – October 30, 2015.
Award Amount: $18,000   Byrd Share: $18,000

Byrd, V. L. (PI), Gemmill, J., Duffy, E. 1st CRA-W/CDC Broadening Participation in Visualization Workshop, CRA-W/CDC, July 15, 2013 – April 15, 2014.
Award Amount: $25,000   Byrd Share: $25,000

Byrd, V. L., (PI), Broadening Participation in Visualization (BPViz) Workshop, National Science Foundation, Award No. 1419415, July 15, 2014 – July 15, 2016.
Award Amount: $25,000 **(Unsolicited)**   Byrd Share: $25,000

Byrd, V. L. (PI), Broadening Participation in Visualization (BPViz) Workshop, Clemson Computing and Information Technology, February 02, 2014 – November 24, 2015.
Award Amount: $10,000   Byrd Share: $10,000

Donations Received to Facilitate Engagement
(Not included in Funding and Grants totals)

Gift-in-Kind, Lawrence Livermore National Laboratory, Participant support for Broadening Participation in Visualization (BPViz) Workshop, 2018, valued at $1,000.

Gift-in-kind, Interworks, Inc., In-person professional software training for Broadening Participation in Visualization Workshop (BPViz), 2018, valued at $1,000.

Donation, Lawrence Livermore National Laboratory, Participant support for Broadening Participation in Visualization Workshop (BPViz), 2016, valued at $500.

PUBLICATIONS

*Graduate Student, ** Undergraduate Student, §Postdoc or Visiting Scholar

Journal Papers (Peer reviewed)

1. Bosman, L., §Madamanchi, A., Bartholomew, S., and **Byrd, V.** (2022). Repeated Use of Adaptive Comparative Judgment to Develop Student Understanding of Artificial Intelligence in Problem Based Learning Assignments, International Journal of Engineering Education Vol. 38, No. 4, pp. 892–904.
2. Bosman, L., Kotla, B., §Madamanchi, A., Bartholomew, S., & **Byrd, V.** (2022). Preparing the future entrepreneurial engineering workforce using web-based AI-enabled tools. European Journal of Engineering Education, 1-18.

3. Camba, J. D., Company, P., & **Byrd, V. L.** (2022). Identifying Deception as A Critical Component of Visualization Literacy, *IEEE Computer Graphics and Applications*, 42.1, 116-122.
4. **Byrd, V. L.** & **Dwenger, N. (2021). Activity Worksheets for Teaching and Learning Data Visualization, *IEEE Computer Graphics and Applications*, Special Issue on Visualization Education and Teaching Visualization Literacy, November/December, 1-12. https://doi.org/10.1109/MCG.2021.3115396
5. *Amarkhil, Q., Elwakil, E., Hubbard, B., & Byrd, V. L. (2023). A framework to standardize causes of construction delay. International Journal of Construction Management, 23(11), 1791-1804.
6. **Santana, V., Bartholomew, S., **Rowe, W., **Byrd, V.**, Strimel, G., & **Han, K. (2020). SMART buoys: integrating data visualization and design to reduce ocean-life casualties. *Technology and Engineering Teacher*, 79(8), 19-23.
7. Bartholomew, S., Strimel, G., **Byrd, V.**, **Santana, V., **Otto, J., Laureano, Z., & **DeRome, B. (2020). Using data to improve precision in crop fertilization through digital agriculture. *Technology and Engineering Teacher*, 79(7), 32-36.
8. §Vieira, C., Parsons, P., & **Byrd, V.** (2018). Visual learning analytics of educational data: A systematic literature review and research agenda. *Computers & Education*, 122, 119-135.
9. Byrd, V. (2018). Parallels between engineering graphics and data visualization: a first step Toward visualization capacity building in engineering graphics design. *Engineering Design Graphics Journal*, 82(2), 24-30.
10. Bravo, E. G., Burbano, A., **Byrd, V. L.**, & Forbes, A. G. (2017). The interactive image: a media archaeology approach. Leonardo, 50(4), 368-375.
11. Byrd, VL, Mayfield-Donahoo T, Reddy, MS, Jeffcoat, MK. (1998). Semiautomated image registration for digital subtraction radiography. Oral Surgery Oral Medicine Oral Pathology 85:473-478.

Conference Papers

1. **Byrd, V. L.**, Saraswat, D., and *Ahmad, A. (2023). Pilot Course in Data Visualization with a Multidisciplinary Approach: Technology + Agricultural Engineering. In *Proceedings of IEEE Frontiers in Education (FIE)*, October 2023.
2. *Mahadalkar, I. A., and **Byrd, V. L.** (2023). Data Visualization Capacity (DVC) Building Tool for Teaching and Learning Data Visualization. In *Proceedings of IEEE Frontiers in Education (FIE)*, October 2023.
3. **Jaiyeoba, O., & **Byrd, V.** (2022). Literature-Based Discoveries in Lupus Treatment. International Journal of Health and Medical Engineering, 16(9), 124-132.
4. Vazquez-Ingelmo, A., Garcia-Penalvo, F. J., Theron, R., **Byrd, V.**, and Camba, J. D. (2022). A proposal to measure the understanding of data visualization elements in visual analytics applications. CEUR-WS.org
5. **Byrd, V. L.** (2021). Zoom Experiences in Higher Education: helping college student build data visualization capacity remotely. In *Proceeding of IEEE Frontiers in Education (FIE)*.
6. **Byrd, V. L.** (2021). Design Activity Worksheet: Identifying Data Sources for Developing a Research Plan. In *Proceeding of IEEE Frontiers in Education (FIE)*.
7. **Byrd, V. L.** (2021). Innovative Pedagogy for Teaching and Learning Data Visualization. *American Society for Engineering Education (ASEE)*, July 26 – 29, 2021.
8. **Byrd, V.L.** (2021) Using Dear Data Project to Introduce Data Literacy and Information Literacy to Undergraduates. In: Arabnia H.R., Deligiannidis L., Tinetti F.G., Tran QN. (eds) Advances in Software Engineering, Education, and e-Learning. Transactions on Computational Science and Computational Intelligence. Springer, Cham.131 – 142. https://doi.org/10.1007/978-3-030-70873-3_10

9. **Zheng, A., & **Byrd, V. L.** (2020). Students' perception of a method for identifying topics for research questions, *2020 IEEE Frontiers in Education (FIE)*, Virtual Conference, October 21 – 24, 2020, 1-8, doi: 10.1109/FIE44824.2020.9274027.

10. **Kanter, N. & **Byrd, V. L.** (2020). A method for transforming a broad topic to a focused topic for developing research questions, 2020 IEEE Frontiers in Education (FIE), Virtual Conference, October 21 – 24, 2020, 1-7, doi: 10.1109/FIE44824.2020.9273817.

11. ** Pecher, D., *Chu, Z., & **Byrd, V. L.** (2020). Developing research questions: a method for transforming a question into a problem statement, *2020 IEEE Frontiers in Education (FIE)*, Virtual Conference, October 2020, 1-8, doi: 10.1109/FIE44824.2020.9274275.

12. **Byrd, V.**, & Camba, J. (2020a). Design activity worksheets for developing research questions, *American Society of Engineering Education (ASEE)*, Virtual Conference, June 21 – 24, 2020.

13. **Byrd, V.**, & Camba, J. (2020b). A worksheet method for developing research questions: an examination of three graduate student cohorts, *2020 IEEE Frontiers in Education (FIE)*, Virtual Conference,1 – 7, October 21 – 24, 2020. https://doi.org/10.1109/FIE44824.2020.9273883

14. **Byrd, V.**, & Asunda, P. (2020). Using Evidence Based Practices and Learning to Enhance Critical Thinking Skills in Students through Data Visualization, *2020* IEEE *Frontiers in Education (FIE)*, Virtual Conference, 1-9, October 21 – 24, 2020. https://doi.org/10.1109/FIE44824.2020.9274157

15. Bosman, L., §Madamanchi, B., Bartholomew, S., & **Byrd, V.** (2020). Applying Artificial Intelligence to the Beer Game, *American Society for Engineering Education* Annual Conference, June 21 – 24, 2020. **[Best Paper]**

16. *Lei, X., & **Byrd, V.L.** (2020). Real-time rendering with heterogeneous GPUs. In *Proceedings of 14th International Conference on Computer Graphics, Visualization, Computer Vision and Image Processing 2020* (CGVCVIP 2020).

17. **Byrd, V.**, Ladd, B., & Roark, K. (2020). Usability of data visualization activity worksheets in the context of a critical data visualization workshop: findings from a usability survey. *American Society for Engineering Education* Annual Conference, June 21 – 24, 2020.

18. **Byrd, V.** (2021). Using dear data project to introduce data literacy, and information literacy to undergraduates. In Proceedings of the *16th Int'l Conference on Frontiers in Education (FECs'20)*: Computer Science and Computer Engineering. Transactions on Computational Science and Computational Intelligence Book Series, Springer Nature.

19. **Byrd, V. (2019)**. Using Bloom's Taxonomy to Support Data Visualization Capacity Skills. In *E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, 1039-1053. Association for the Advancement of Computing in Education (AACE)*. **[Outstanding Paper Award]** https://www.learntechlib.org/primary/p/212809/

20. *Periasamy, P., & **Byrd, V. L.** (2019). Generative Adversarial Networks for Lupus Diagnostics. In *Proceedings of the Practice and Experience in Advanced Research Computing on Rise of the Machines (learning)*, 1-8.

21. §Gonzalez-Torres, A., **Byrd, V.**, and Parsons, P. (2019). VKE: A Visual Analytics Tool for Cyber Security Data. *Proceedings of the International Conference on Security and Management* (SAM), 56-62.

22. **Byrd, V.** (2018). Introducing Data Visualization: A Hands-on Approach for Undergraduates. In Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education, 559-565. Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). https://www.learntechlib.org/primary/p/185027/

23. **Byrd, V. L.**, and §Vieira, V. C. (2017, June). Visualization: A conduit for collaborative undergraduate research experiences. In American Society for Engineering Education (Vol. 33).

24. **Byrd, V. L.** (2016, August). Broadening participation in visualization. In 2016 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT), 1-2. IEEE.

25. §Vieira, C., Parsons, P., & **Byrd, V.** (2017). Exploring Important and Difficult Concepts to Learn in Information Visualization, 2nd Pedagogy of Data Visualization Workshop, 2017, October 1-6, Phoenix, Arizona, USA, IEEE.
26. **Byrd, V. L.**, McGraw, T., Chen, Y., & Connolly, P. (2016). Curriculum development for visualization capacity building. Proceedings of the ASEE Engineering Design Graphics Division, 16-18.
27. **Byrd, V.L.**, & Witten, T. (2006). Needs Assessment for Scientific Visualization of Multivariate, High-dimensional Microarray Data. BIOCOMP, 103-109.

Book Chapters

1. González-Torres, A., Hernández-Campos, M., González-Gómez, J., **Byrd, V. L.**, & Parsons, P. (2020). Information Visualization as a Method for Cybersecurity Education. In Innovations in Cybersecurity Education, 55-70. Springer, Cham.
2. **Byrd, V. L.** (2019). Sharing Research Data, Data Standards and Improving Opportunities for Creating Visualizations. In Kramer-Smyth, J. (Ed.) Partners for Preservation: Advancing Digital Preservation through Cross-Community Collaboration, 167-184. UK: Facet Publishing.
3. **Byrd, V.,** & Gaither, K. (2019). Chapter 5: Community On-ramps, in Diversity in visualization. Metoyer, R., and Gaither, K. Eds, Synthesis Lectures on Visualization, Niklas Elmqvist & David Ebert, Series Editors, 6(1), 31-38. Morgan & Claypool.

Reviewed Book Chapters

1. Camba, J.D. & Company, P. (2020). Chapter 3 Information Graphics, in Foundations of Computer Graphics: A User-Centered Approach. eAcademic Books. ISBN: 978-0-9962452-1-0.

Abstracts (Peer Reviewed)

1. **Byrd, V. L.** (2018). Special Snapshot Section: Making a Case for Data Visualization at the Undergraduate Level. The Journal of Purdue Undergraduate Research, 8(1), 26.
2. **Byrd, V.** (2016). Broadening participation in visualization. 2016 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT), 1-2. doi: 10.1109/RESPECT.2016.7836177.
3. **Byrd, V.**, & Cottam, J. (2016). Facilitating visualization capacity building. Proceedings of the *9th International Symposium on Visual Information Communication and Interaction*, 156.
4. **Byrd, V.**, Pulliam, R., Reddy, M. S., & Jeffcoat, M. K. (1997, January). Accuracy of stimulated lesion detection using semiautomatic alignment for digital subtraction radiography in human subjects. In *Journal of Dental Research*, 76, 2854-2854. 1619 Duke St, Alexandria, VA 22314: American Association of Dental Research.
5. **Byrd, V.**, Mayfield-Donahoo, T., Pulliam, R., Reddy, M. S., & Jeffcoat, M. K. (1996, January). Semiautomatic alignment and correction of affine geometric discrepancies for digital subtraction radiography. In *Journal of Dental Research,* vol. 75, 1694-1694. 1619 Duke St, Alexandria, VA 22314: *American Association of Dental Research*.
6. **Byrd, V.**, Mayfield-Donahoo, T., Reddy, M. S., & Jeffcoat, M. K. (1995, January). Automated selection of reference points for Superimposition of Radiographs. In *Journal of Dental Research*, 74, 68-68. 1619 Duke St, Alexandria, VA 22314: American Association of Dental Research.

Posters

1. **Byrd, V. L.** (2019, July). Facilitating Deep Learning Through Vertical Integration Between Data Visualization Courses Within an Undergraduate Data Visualization Curriculum. In International Conference on Human-Computer Interaction (pp. 193-201). Springer, Cham.

2. **Byrd, V. L.** (2015, August). Broadening Participation in Visualization. Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT 2015); STC Broadening Participation in the Computing Science. Charlotte, NC, August 13-14, 2015.
3. **Byrd, V.** (2015, August). Advancing the Frontiers of Interdisciplinary Research by Broadening Participation in Visualization. Gordon Research Conference on Visualization in Science & Education, Bates College, Lewiston, ME.
4. Moysey, S. M., Boyer, D. M., Mobley, C., & **Byrd, V. L.** (2014). Building Opportunities for Environmental Education Through Student Development of Cyberinfrastructure. AGUFM, 2014, ED53B-3486.
5. **Byrd, V. L.** (2014, September). "Advancing Frontiers of Interdisciplinary Research Utilizing Cyberinfrastructure Resources," CI-Expo, Clemson University, Clemson, SC.
6. Moysey, S., Mobley, C., Boyer, M. & **Byrd, V.** (2014, September). "Expressing Sustainability within the Web-Based Multiplayer Game Naranpur Online," Bosch, M. CISE REU Symposium, Student Poster Session, Arlington, VA.
7. **McDavid, J. & **Byrd, V.** (2014, July). "Reconstructing History," Extreme Science and Engineering Discovery Environment (XSEDE), Student poster session, Atlanta, Georgia.
8. **Park, C., & **Byrd, V.** (2013, July). "Visualizing Social Media Data," Extreme Science and Engineering Discovery Environment (XSEDE), Student poster session, San Diego, California.
9. **Byrd, V.** (2010, March). "A Multiresolution Approach for Improved Quality Control of Microarray Images." National Faculty Collaborative Research Poster Competition, 2010 Minority Faculty Development Workshop, Massachusetts Institute of Technology, Cambridge, Massachusetts. Recognized as Winner, Presentation Category.
10. **Byrd, V.** (2009, April). "Parallel Clustering Tool for Liquid-Chromatography Mass-Spectrometry (LC/MS) Data," Mentor: Frank Suits, PhD, Computational Biology Center, IBM T. J. Watson Research Center, NY, 2009 Graduate Student Research Day, University of Alabama at Birmingham.
11. **Byrd, V.** (2008, August). "A Parallel Clustering Tool for Peak Matching Liquid-Chromatography Mass-Spectrometry Data," Summer Intern Poster Session. IBM T. J. Watson Research Center, Functional Genomics and Systems Biology Research Group, Yorktown Heights, New York.
12. **Byrd, V.** (2005, August). "A Novel Approach for Analyzing and Visualizing High-Dimensional, Multivariate Microarray Data," Bioinformatics and Bioengineering Summer Institute (BBSI) Virginia Commonwealth University, Dr. Tarynn M. Witten, Mentor. Center for the Study of Biological Complexity.
13. **Byrd, V.** (2005, March). "3D Surface Construction Using Dualing Cubes Algorithm," Byrd, V. Alabama Academy of Science 2008, Birmingham Southern College.
14. **Byrd, V.** (2004). "Multivariate High Dimensional Visualization and Analysis of Microarray Data Incorporating Simultaneous Spatial and Temporal Components," Byrd, V. Bioinformatics and Bioengineering Summer Institute (BBSI) Virginia Commonwealth University, Dr. Tarynn M. Witten, Mentor. Center for the Study of Biological Complexity.

TEACHING

Purdue University – Department of Computer Graphics Technology

Course Title: **Topics in Visualization (Undergraduate, Lecture, 1 cr.)**
Description: Examination of current trends in data visualization
Date Taught: Fall 2019, Fall 2020, Fall 2021, Fall 2022

Course Title: **Data Visualization Tools & Applications (Graduate, Lecture, 3 cr.)**
Description: Graduate course focused on current visualization tools and applications

Date Taught: Spring 2016, Fall 2016, Spring 2017, Spring 2018, Spring 2019, Spring 2020, Spring 2021, Spring 2022, Spring 2023

Course Title: **Data Visualization II   (Undergraduate, Lecture/Lab, 3 cr.)**
Description: Advanced data visualization topics that include visual analytics, beginning programming for visualization, introduction to machine learning for visualization.
Date Taught: Spring 2023, Spring 2022, Spring 2021, Spring 2020, Spring 2019

Course Title: **Introduction to Data Visualization (Undergraduate, Lecture/Lab, 3 cr.)**
Description: Introductory data visualization course focused on data visualization principles, methods, and workflow.
Date Taught   Fall 2016, Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2022, Fall 2023

Course Title: **Seminar (Graduate, Lecture, 1 cr.)**
Description: Graduate seminar in computer graphics methods.
Date Taught: Fall 2018

Course Title: **Foundations of Computer Graphics Technology (Undergraduate, Lecture/Lab 3 cr.)**
Description: Introduction to computer graphics technology.
Date Taught: Spring 2018

Course Title: **Fundamentals of Imaging Technology (Undergraduate, Lecture/Lab 3 cr.)**
Description: Introduction to imaging technology.
Date Taught: Spring 2018

Course Title: **Professional Certificate   (8 weeks, 3 cr.)**
Description: Data visualization for Rolls Royce Professional Certificate.
Date Taught: Spring 2016

Purdue University Polytechnic Institute Short Courses
Course Title: **Introduction to Data Visualization (1 week, 1 cr.)**
Description: Introduction to data visualization for first year students.
Date Taught: June 2023

Course Title: **Introduction to Geospatial Data (1 week, 1 cr.)**
Description: Introduction to geospatial data and GIS for first year students.
Date Taught: June 2023

THESIS SUPERVISION & RESEARCH

Graduate Student Thesis Involvement

Student	**Degree/Date**	**Specialization**	**Instructional Role**
Doctoral Students			
Oluwaseyi Jaiyeoba	PhD/	Computer Graphics Technology/Data Visualization	Committee Chair
Vinicius de Lima	PhD/	Computer Graphics Technology/Data Visualization	Committee Chair

Kehinde Ayano	PhD/2023	Computer and Information Technology	Committee Member
Oluwafolake Ayano	PhD/2022	Computer and Information Technology	Committee Member
Adefolarin Bolaji	PhD/2022	Computer and Information Technology	Committee Member
Erika Bonnett	PhD/2019	Computer and Information Technology	Committee Member
Tara Renee Camacho-Lopez	PhD/	*DTech	Committee Member
Sharlane Cleare	PhD/2021	Technology Leadership and Innovation	Committee Member
Chinelo Njoku	PhD/	Information Visualization	Committee Member
Ramyani Sengupta	PhD/	Construction Management Technology	Committee Member

Purdue University offers the Doctor of Technology (DTech) as an equivalent to the Ph.D. requiring a dissertation focusing on applied/use-inspired research of direct relevance to professional practice.

Masters Students

Jennifer Brisco	M.S./	Computer Graphics Technology	Committee Chair
Xiao Lei	M.S./05/2020	Computer Graphics Technology/Data Visualization	Committee Chair
Yash Gugale	M.S./05/2020	Computer Graphics Technology/Data Visualization	Committee Chair
Shuqi Liao	M.S./12/2023	Computer Graphics Technology/Data Visualization	Committee Chair
Isha Mahadalkar	M.S./05/2024	Computer Graphics Technology/Data Visualization	Committee Chair
Pradeep Periasamy	M.S./10/2019	Computer Graphics Technology/Data Visualization	Committee Chair
Zongcheng Chu	M.S./05/2020	Computer Graphics Technology	Committee Member
Sharlane Cleare	M.S./05/2018	Technology Leadership and Innovation	Committee Member
Ana Fiona Dalipi	M.S./04/2021	Computer Graphics Technology	Committee Member
Yu-shen Ho	M.S./08/2019	Computer Graphics Technology	Committee Member
Asefeh Kardgar	M.S./08/2017	Computer Graphics Technology	Committee Member
Seung Hee Lee	M.S./05/2019	Computer Graphics Technology	Committee Member
Joshua Heller	M.S./05/2022	Computer Graphics Technology *(Non-Thesis)*	Committee Member

Abdelrahman Mehrez   M.S./05/2022   Computer Graphics Technology   Committee Member
                                        (Non-Thesis)

Undergraduate Research

2020   Co-authored 5 student led publications in Frontiers in Education (FIE) 2020
2019   Supervised OUR Scholar Undergraduate Researchers
2019   Supervised STAT-Living Learning Community (LLC) Undergraduate Researchers
2018   Special Snapshot section in Journal of Purdue Undergraduate Research (JPUR) featuring research
       abstracts for 7 undergraduate researchers
2018   Supervised STAT-Living Learning Community (LLC) Undergraduate Researchers
2018   Supervised OUR Scholar Undergraduate Researchers
2015   NSF REU Site: Research Experience for Undergraduates in Collaborative
       Data Visualization Applications, Clemson University, Clemson, SC, VizREU Site, NSF ACI
       Award 1359223. https://visualization.sites.clemson.edu/reu/REUStudents2015.html
2014   NSF REU Site: Research Experience for Undergraduates in Collaborative Data Visualization
       Applications, Clemson University, Clemson, SC, VizREU Site, NSF ACI Award 1359223.
       https://visualization.sites.clemson.edu/reu/REUStudents2014.html

Mentoring

Mentored over 100 undergraduate students (2014 – present)
Mentored: 2 Postdocs, 2 visiting graduate scholars, and 3 visiting undergraduate summer scholars.

INVITED TALKS

1. I-GUIDE Webinar: Visual Storytelling with Data: From the Basics to Science Communication,
   November 2022.
2. Activity Worksheets for Teaching and Learning Data Visualization, IEEE 2022 Conference,
   Oklahoma City, Oklahoma, October 2022.
3. Guided Modular Approach (GMA) to Building Data Visualization Capacity, 6th Annual International
   Campus Alliance for Advanced Visualization (CAAV) Conference, November 1 – 4, 2021.
4. Small Steps & Major Moves: Building Higher Ed Data Visualization Capacity in an Environment
   Transformed by COVID-19, Virtual 2020 Science on a Sphere Workshop, National Oceanic and
   Atmospheric Administration (NOAA) U.S. Department of Commerce, December 1 – 3, 2020.
5. Building Data Visualization Capacity: A Byrd's Eye View," University of Utah, Bioengineering
   Elevated Seminar Series, November 6, 2020 (Virtual talk, 96 attendees)
6. Data Science, Digital Agriculture and the Role of Data Visualization, Purdue Department of
   Agriculture, Purdue University, November, 1, 2019.
7. Making a Case for Broadening Participation in Visualization," VISUALISE Conference,
   Exploratorium, San Francisco, CA, August 30, 2019.
8. The Ubiquitous Nature of Data and The Role of Data Visualization, Wittenberg University,
   Springfield, OH, October 8, 2018.
9. Midwest Big-Data Hub (MBDH) Planning meeting, Big Ten Center, Rosewood, IL, March 9 – 10,
   2018.
10. VizREU Experience: Pathway to Insight, Discovery, and Collaboration, Super Computing (SC)
    Conference, Denver, CO, November 2015.
11. High Performance Computing in Undergraduate Biology Education, Banbury Center Meeting, Cold
    Spring Harbor Laboratory, Long Island, NY, September 3- 5, 2014.
12. Visualization – A Catalyst for Communication, a Conduit for Collaboration and Participation,
    XSEDE14, Invited Plenary Talk, Atlanta, GA, July 17, 2014.

Introduction to Scientific Visualization

1. American Society of Engineering Education (ASEE)/Engineering Design Graphics Division (EDGD) Mid-Year Conference, Engineering Design Graphics Division, Jamaica, January 2018.
2. "Introduction to Scientific Visualization Using ParaView," Blue Waters Visualization Webinar Series, April 05, 2017.
3. Extreme Science Engineering Discovery Environment (XSEDE) Workshop Series, South Carolina State University, Orangeburg, SC, October 2017.
4. Biological/Pre-Medical Illustration (BPMI) and Scientific Visualization Presenter Series, Iowa State University, Ames, IA. March 2017.
5. Biological/Pre-Medical Illustration (BPMI) and Scientific Visualization Presenter Series, Iowa State University, Ames, IA, March 2017. Emerging Researchers National (ERN) Conference in Science, Technology, Engineering, and Mathematics (STEM), American Association for the Advancement of Science (AAAS), Education and Human Resources Programs (HER) and the national Science Foundation (NSF) Division of Human Resource Development (HRD), within the Directorate for Education and Human Resources (HER). Washington, DC, March 2017.
6. Research and Technology Development Conference, Missouri Science and Technology. September 12, 2016.

Introduction to Data Visualization

1. Introduction to Data Visualization, Blue Waters Visualization Webinar Series, March 01, 2017.
2. openNASA Datanauts Water Cooler Webinar Series. November 3, 2016.
3. Summer Undergraduate Research Fellowship (SURF) Faculty Talk, Purdue University. West Lafayette, IN, June 2017.
4. Summer Undergraduate Research Fellowship (SURF) Seminar, Purdue University, West Lafayette, IN, July 2016.

***Invited** International Talks*

1. International High-Performance Computing Summer School (IHPCSS), ***Invited lecturer***, Introduction to Scientific Visualization featuring ParaView, Boulder, CO, June 25 – 30, 2017.
2. International High-Performance Computing Summer School (IHPCSS), ***Invited lecturer***, Introduction to Scientific Visualization featuring ParaView, Ljubljana, Slovenia, June 26 – July 1, 2016.
3. International High-Performance Computing Summer School (IHPCSS), ***Invited lecturer***, Introduction to Scientific Visualization featuring ParaView, Toronto, Canada, June 21 – 26, 2015.

WORKSHOPS, PANELS AND WEBINARS

*Workshops **(Organized)***

1. 2020 Building Data Visualization Capacity, University of Texas at San Antonio, Virtual Workshop (July 20 - 24, 2020) https://research.utsa.edu/event/utssummerwebinar/
2. 2019 Broadening Participation, Diversity, Equity and Inclusion in Visualization Education & Careers, Pre-conference Workshop, University of New England, Biddeford Campus, ME, July 13 – 14, 2019.

Broadening Participation in Visualization (BPViz) Workshop

3. 2018 Purdue University, West Lafayette, Indiana, July
4. 2016 Purdue University, West Lafayette, Indiana, June
5. 2014 Clemson University, Clemson, South Carolina, February 10-14, 2014.

Workshops **(Invited)**

6. Building Data Visualization Capacity (virtual workshop), University of Texas at San Antonio, July 20 – 24, 2020.
7. Python for Data Science Bootcamp, "Data Handling & Data Visualization," Georgia Institute of Technology, Atlanta, GA, August 6 – 9, 2019.
8. Liberal Arts Data Science Workshop, "The Role of Data Visualization in Liberal Arts and Data Science," New College of Florida, Sarasota, FL, January 12-13, 2018.
9. XSEDE Workshop, "Introduction to Scientific Visualization," South Carolina State University, Orangeburg, South Carolina, October 20 – 21, 2017. South Carolina State University is a public Historically Black College/University (HBCU) with an approximate enrollment of 1,506 undergraduate students and 151 graduate students.
10. XSEDE Workshop, "Introduction to Scientific Visualization," Albany State University, Albany, GA, April 22 – 23, 2016. Albany State University, is a small public HBCU with an approximateenrollment of 3,000 undergraduates and 900 master's students.

Panels

1. Susan Bulkeley Butler Center for Leadership Excellence P&T Panel: Invited Talk, 13th Annual Conference for Assistant Professors titled Persistence and Resilience: Envisioning what Institutions can do for Faculty, Purdue University, September 23, 2022.
2. Black Faculty Excellence Luncheon and Panel Discussion: Recognizing the Excellence Within Purdue University Office of Diversity, Inclusion and Belonging, September 7, 2022.
3. Establishing Goals, Focusing on Priorities, and Documenting Impact. New Faculty Orientation Session, Purdue University, October 26, 2022.
4. Women in Data Science Virtual Conference, Purdue University, March 2021.
5. Diversity in Visualization IEEE VIS 2017 Panel. **Best Panel**.
6. Science, Technology, Engineering and Mathematics (STEM) Black History Month, Imagination Station, Lafayette, Indiana, February 24, 2017.
7. Hidden Figures – Women of Color in STEM, Black Cultural Center, Purdue University, West Lafayette, Indiana, January 14, 2017.
8. Aspire to Lead Panel Discussion, The Price Waterhouse Cooper (PWC) Women's Leadership Series. Purdue University, West Lafayette, Indiana, February 07, 2016.

Webinars **(Invited)**

1. Introduction to Scientific Visualization Using ParaView, Blue Waters Visualization Webinars, April 5, 2017.
2. Introduction to Data Visualization, Blue Waters Visualization Webinars, March 1, 2017.

HONORS & AWARDS

2023	Seed for Success Acorn Award *(In recognition of their contribution acquiring a $1 million or more award for the first time)*
2021	Scholarship of Engagement Fellow, Purdue University
2021	Superhero of Science, Purdue University College of Science
2020	John P. Lisack Early Career Outstanding Faculty in Engagement Award, Purdue Polytechnic Institute
2020	Outstanding Faculty in Engagement, Computer Graphics Technology Department
2020	Best Paper Award, American Society of Engineering Education (ASEE) 2020
2019	Office of Undergraduate Research Scholar Faculty Award
2019	Good to Great Award, Purdue Polytechnic Award

2019	Outstanding Paper Award, E-Learn Conference
2018	Office of Undergraduate Research Scholar Faculty Award
2017	IEEE VIS 2017 Best Panel Award
2017	Outstanding Faculty in Discovery, Computer Graphics Technology Department
2017	Outstanding Faculty in Engagement, Computer Graphics Technology Department
2015	Nominated for Maximizing Organizational Resources (MOR) Leadership Award

LEADERSHIP IN PROFESSIONAL AND ACADEMIC ORGANIZATIONS

2025	Co-Conference Chair, Gordon Research Conference on Visualization in Science and Education
2019	Academic Panel/Workshop Track Reviewer, ACM Richard Tapia Celebration of Diversity in Computing Conference on Diversity
2019	Technical Program Committee Member, Super Computing (SC) Conference
2018	Scientific Visualization & Data Analytics Showcase Program Committee, Super Computing (SC) Conference
2018	PEARC18 Technical Program Committee
2018	TAPIA 2018 Scholarship Committee, ACM Richard Tapia Celebration of Diversity in Computing Conference on Diversity
2017	Co-Vice Conference Chair, Gordan Research Conference on Visualization and Education
2017	Vice-Chair, Visualization and Analytics Showcase (Invited), Super Computing Conference
2017	Poster Judge for student poster symposium, Emerging Researcher Network (ERN) Conference, Washington, DC, February 2017
2017	Program Committee Member, 10th International Symposium on Visual Information Communication and Interaction (VINCI2017)
2017	Program Committee, American Society for Engineering Education (ASEE), 2017
2016	Program Committee Member, Research on Equity and Sustained Participation in Computing Engineering & Technology (RESPECT) Conference
2016	Steering Committee Member (Elected), Organization: Midwest Big Data Hub (2016 – 2018)
2016	Vice-Chair, Visualization and Analytics Showcase, Super Computing Conference (SC)
2015	Deputy Chair of XSEDE15 Education Outreach and Training (EOT) Track **(Invited)**
2015	Gordon Research Conference: Visualization in Science & Education, August 2015, Bates College, Lewiston, ME (Invited Discussion Leader)

SERVICE

Departmental Service

2023	Associate Department Head
2023	Graduate Program Committee Chair
2022 – 2023	Curriculum Sub-Committee Member
2021	Interactive Media Graphics Search Committee, Committee Member
2020 – 2021	First Year Curriculum Core Committee
2019 – 2020	UX Faculty Search Committee
2016 – 2022	Graduate Committee, Committee Member
2017 – 2018	Digital Certification Committee, Committee Member
2016 – Present	Data Mine Data Visualization Learning Community Faculty Liaison

College Level

2022 - 2024	Polytechnic Faculty Senate Committee Member
2022 – Present	Future Work and Learning (FWL) Research Impact Area, Co-Chair
2021 - 2023	Inclusion, Diversity, Equity and Advocacy (IDEA) Steering Committee, Member
2019 – 2020	Grievance Committee, Member

2018 – 2020	Diversity and Great Place to Work Committee, Member
2017 – 2022	Future Work and Learning (FWL) Research Impact Area Group, Member
2017 – 2022	Realizing Digital Enterprise (RDE) Research Impact Area Group, Member
2016 – Present	Faculty Student Mentoring
2016	Undergraduate Research Symposium Poster Judge
2016 – 2020	Recruitment and Retention Committee
2016	CGT Research Assessment Group
2015 – 2016	Polytechnic Mentorship Program Committee
2015 – 2016	Undergraduate Recruitment, Committee Member

University Level

2019 – 2023	Faculty Fellow
2019 – 2020	Data Mine Data Visualization Faculty Liaison
2019	Data Mine Assistant Executive Director Search Committee
2019	Destination Purdue Luncheon, 400 Students and guests in attendance
2016 – 2018	Parliamentarian for the Purdue Black
2016	Undergraduate Research Committee (nominated by Dean Gary Bertoline)
2015 – 2016	Undergraduate Recruitment

Outreach Activity

2023	"Introduction to Data Visualization," and "Introduction to Geospatial Data," TEAMs Summer Camp. TEAMs is designed to introduce young women to Purdue Polytechnic Institute majors and career opportunities for women within the science, technology, engineering, and mathematics (STEM) fields.
2016	"Introduction to Data Visualization," Discovering Opportunities in Technology (DOiT) Camp, Purdue Polytechnic Institute, March 2016.
2015	"Introduction to Data Visualization," Communicating Leadership and Advancing Innovation for Minorities in Technology (CLAIMiT) Camp, Purdue Polytechnic Institute, November 2015.
2015	"Introduction to Data Visualization," Windows of Opportunity for Women in Technology (WOWiT) Camp, Purdue Polytechnic Institute, October 2015.
2015	"Research Opportunities for Undergraduates," Byrd, V.L. Purdue Polytechnic Research Round Table, Purdue Memorial Union, South Ballroom, November 10, 2015.

PROFESSIONAL SERVICE & DEVELOPMENT

Professional Service

2023 – 2025	Gordon Research Conference on Visualization in Science and Education, Co-Chair
2022 – 2023	IEEE Vis Diversity & Inclusion Committee, Co-chair
2021 - 2022	EuroVis 2022 – Full Papers Program Committee, Member
2021 – 2022	IEEE VIS 2022 Organizing Committee, Member
2021	Midwest Big Data Hub Advisory Board Member
2020 - Present	Data Visualization Society Advisory Council Member
2017 – 2019	Gordon Research Conference (GRC) on Visualization in Science and Education **Unanimously Elected,** Co-Vice Chair
2017	Super Computing (SC) Program Committee
2017	Reviewer For the 2017 ASEE Annual Conference & Exposition
2016	Program Committee Member for RESPECT2016: Research on Equity and Sustained Participation in Engineering, Computing, and Technology (http://respect2016.stcbp.org)
2016	Workforce Development and Diversity Committee Member, Extreme Science and

	Engineering Discovery Environment (XSEDE) Group, 2016 (http://www.xsede.org)
2016	PAN REU PI Meeting, Rosslyn, Virginia, April 28 – 30, 2016 (Nominated by NSF Program Officer)
2015	Deputy Chair of XSEDE15 Education Outreach and Training (EOT) Track **(Invited)**
2015	Gordon Research Conference on Visualization in Science and Education, Discussion Leader, August 2015 **(Invited)**
2015	Super Computing Conference, Poster Committee; Austin, TX
2014	Invited Panelist, Department of Homeland Security SLA Review COI/NDA Reviewer: June 2014
2014	CISE REU Site PI Meeting, Washington, D.C., March 27-28, 2014
2014	Council for Undergraduate Research (CUR), Arlington, VA, October 2014

Professional Development

2021	NSF CAREER Proposal Workshop, Virtual, February 2021
2021	"Making the Leap to Large: Leading Large-scale Science and Engineering Projects, NSF 7-Part Workshop Series, April - July
2016	2nd Biennial CRA-W/CDC CADENS Broadening Participation in Visualization (BPViz) Workshop, Purdue University, August 3 -4, 2016
2016	NSF CAREER Workshop, Purdue University, April 19, 2016
2016	Present National Center for Faculty Development & Diversity Faculty Success Program
2016	NSF Review Panelist, April 2016
2015	Education Panel: "Making the most of Graduate School (in HPC)"; Austin, TX **(Invited)**
2015	NSF Review Panelist, October 2015
2015	Science Careers Expo, Welcoming South Carolina High School Students to Clemson University, April 16, 2015
2015	MOR Leadership Training for IT Professionals, January 2015 – August 2015
2015	University Professional Internship/Co-op Program (UPIC) Mentor, Clemson University
2014	"Strategies for Success as a Principal Investigator," Clemson University, September 9-10, 2014
2014	University Professional Internship/Co-op Program (UPIC) Mentor, Clemson University
2013	Council for Undergraduate Research (CUR), Arlington, VA, October 2013
2013	Extreme Science and Engineering Discovery Environment San Diego, CA, July 16-20, 2013
2013	EL Alliance Webinar, March 2013
2013	NSF Computing Education for the 21st Century (CE21) Meeting, Portland, OR, January 2013
2013	University Professional Internship/Co-op Program (UPIC) Mentor, Clemson University
2013	University Professional Internship/Co-op Program (UPIC) Clemson University (Committee Member)
2012	Super Computing, Salt Lake City, UT, November 10-16, 2012
2012	IEEE VisWeek, Seattle WA, October 14-19, 2012
2012	Extreme Science and Engineering Discovery Environment, Chicago, IL, July 16-20, 2012
2012	DOE ASCR Exascale Research Review Panel: 2012 X-Stack: Programming Challenges, Runtime Systems, and Tools, April 06, 2012
2012	University Professional Internship/Co-op Program (UPIC) Mentor, Clemson University
2011	Super Computing, Seattle, WA, November 12-18, 2011
2011	Visualization Week, Providence, RI, October 23- 28, 2011
2011	NSF EPSCoR Workshop, Knoxville, TN, October 10-12, 2011

2011	FORWARD to Professorship Workshop, When and Where I Enter . . . Unlocking the Door for Women of Color in STEM, University of Toledo, Toledo, Ohio, August 10-12, 2011
2011	Advanced Data Analysis and Visualization Workshop, Southeastern Universities Research Association (SURA), Washington, DC, June 17, 2011
2004 - 2014	Compact for Faculty Diversity Annual Institute on Teaching and Mentoring, Southern Regional Educational Board (SREB)

Media Presentations (Invites)

2021	Polytechnic Live Q&A on You Tube, March 23, 2021
2021	One Chart at a Time, Episode 3, Episode 31: Stem and Leaf Plot, February 2021 [Episode 31: Stem-and-Leaf Plot with Vetria Byrd](#)
2021	Superhero of Science, Purdue College of Science, July 2021, https://youtu.be/S4_MVmQDLRk

Proposal Reviewer

National Science Foundation, Department of Homeland Security

Reviewer

EUROVis 2022
IEEE VIS 2022, Program
American Society for Engineering Education (ASEE)
Frontiers in Education (FIE)
Visualization Showcase Reviewer, Super Computing (SC)
SIGGraph 2019 Poster Session

ACADEMIC EXPERIENCE & INTERNSHIPS

2008	IBM T. J. Watson Research Center, Graduate-level Co-op, Functional Genomics and Systems Biology Research Group, Yorktown Heights, New York (Summer 2008)
2005	Bioinformatics and Bioengineering Summer Institute, Virginia Commonwealth University, Richmond, Virginia (Summer 2005)
2004	Bioinformatics and Bioengineering Summer Institute, Virginia Commonwealth University, Richmond, Virginia (Summer 2004)
2000	Medical Informatics MBL/NLM Course Fellow – Marine Biological Laboratory, Woods Hole, MA, National Library of Medicine, Certificate, Fall Course 2000

PROFESSIONAL MEMBERSHIPS

Association for Computing Machinery (ACM), Member
Institute of Electrical and Electronics Engineers (IEEE), Member
Data Visualization Society (IEEE), Advisory Board Member
American Society for Engineering Education (ASEE), Member