

Education

- June 2026 (expected) **PhD, Computer Science & Engineering**, *Washington University in St. Louis*, Missouri, USA.
Advisor: Dr. Alvitta Ottley
- 2021 - 2024 **Master in Computer Science**, *Washington University in St. Louis*, Missouri, USA.
Advisor: Dr. Alvitta Ottley
- 2017 - 2021 **Bachelor of Science, Computer Science & Mathematics**, *Beloit College*, Wisconsin, USA.
Advisor: Dr. Eyad Haj Said

Awards & Honors

- 2023 Earned **top 15-20% Departmental Honors** in the Department of Computer Science and Engineering through annual review consensus at Washington University in St. Louis.
- 2023 **Best Paper Award** for “Mini-VLAT: A Short and Effective Measure of Visualization Literacy” at *The Eurographics Conference on Visualization (EuroVIS) 2023* (Germany).
- 2021 **Conwell-Huffer Endowed Prize in Mathematics** for outstanding senior mathematics or computer science student at Beloit College.
- 2020 **Walter S. Haven Physics/Astronomy Prize** for outstanding summer research project at Beloit College, Wisconsin.

Publications

Preprints and Working Manuscripts

- 2025 **Estimating PM2.5 at North Carolina Public School Locations: A Comparative Study of Data Sources and Interpolation Methods**
Rachel Carroll, Paul Bailey, [Saugat Pandey](#), Dana McCalla, and Thomas Snyder
Manuscript in Preparation
- 2025 **Beyond the Classroom: Environmental Determinants of Student Achievement in North Carolina**
Rachel Carroll, Dana McCalla, Paul Bailey, [Saugat Pandey](#), and Thomas Snyder
Manuscript in Preparation
- 2025 **Style Matters: A Cross-Organizational Study of Visualization Guidelines**
Saugat Pandey, Lemara Williams, Mia Hines, and Alvitta Ottley
Under Review at IEEE VIS 2025

Journal & Peer Reviewed Conference Papers

- 2025 **Benchmarking Visual Language Models on Standardized Visualization Literacy Tests** [DOI](#)
[Saugat Pandey](#) and Alvitta Ottley
Computer Graphics Forum (CGF). Also in *Proceedings of 27th eg Conference on Visualization (EUROVIS)* — (Acceptance Rate: 27%)
- 2025 **Trustworthy by Design: The Viewer’s Perspective on Trust in Data Visualization** [DOI](#)
Oen McKinley, [Saugat Pandey](#), and Alvitta Ottley
Proceedings of the ACM CHI Conference on Human Factors in Computing Systems (ACM CHI) — (Acceptance Rate: 24.5%)
- 2024 **Building and Eroding: Exogenous and Endogenous Factors that Influence Subjective Trust in Visualization** [DOI](#)
R. Jordan Crouser, Syrine Matoussi, Lan Kung, [Saugat Pandey](#), Oen McKinley, and Alvitta Ottley
IEEE Visualization & Visual Analytics (IEEE VIS) — (Acceptance Rate: 23.2%)

Do you trust what you see? toward a multidimensional measure of trust in visualization [DOI](#)
2023 Saugat Pandey, Oen McKinley, R. Jordan Crouser, and Alvitta Ottley
IEEE Visualization and Visual Analytics
(**IEEE VIS**) — (Acceptance Rate: 25.8%)

Mini-VLAT: A Short and Effective Measure of Visualization Literacy [DOI](#)
2023 Saugat Pandey and Alvitta Ottley
Computer Graphics Forum (CGF). Also in *Proceedings of 25th eg Conference on Visualization*
Best Paper Award (**EUROVIS 2023**) — (Acceptance Rate: 27%)

Workshop Papers and Lightly-Reviewed Articles

User Engagement with COVID-19 Visualizations on Twitter [DOI](#)
2023 Robert Kasumba, Saugat Pandey, Vishesh Patel, Micah Wolfson, and Alvitta Ottley
IEEE VIS Workshop on Visualization for Communication (VisComm) 2023

Teaching Experience

Co-Instructor

Fall 2024 **Course:** Introduction to Visualization
Washington University in St. Louis
Overall Score: 6.67/7 (Department Avg: 6.11/7, School Avg: 6.18/7)

Undergraduate Teaching Assistant

2017 - 2021 **Courses:** Introduction to Object-Oriented Programming, Data Structures & Algorithms, Discrete Structures, Computer Architecture, & Fundamentals of Physics
Beloit College, Beloit, WI

Presentations

- 2023 Presented paper titled “Mini-VLAT: A Short and Effective Measure of Visualization Literacy” at EuroVIS 2023 (Leipzig, Germany)
- 2022 Presented paper titled “User engagement with covid-19 visualizations on twitter” at IEEE VIS Workshop on Visualization for Communication 2023 (Oklahoma City, OK)
- 2018 Poster Presentation, Midstates Consortium for Math and Science at Washington University in St. Louis

Grants & Funded Research

I have been funded by and contributed to the following National Science Foundation grants.

HDR Institute: Institute for Data Driven Dynamical Design

Amount: \$15,540,749

Agency: National Science Foundation

Principal Investigator: Dr. Eric Toberer (Colorado Mines)

Co-Principal Investigators: Dr. Ryan Adams (Princeton), Dr. Alvitta Ottley (WashU), Dr. Steven Lopez (Northeastern), and Dr. Adji Bousso Dieng (Princeton)

Your Role: Graduate Research Assistant

Contribution: Currently supported by this grant. Investigated visualization literacy of visual language models (VLMs) and compared their capabilities with those of human participants.

CAREER: Context-Aware Visual Analytics Systems: Evolving the One-Size-Fits-All Approach to Design and Evaluation

Amount: \$528,223

Agency: National Science Foundation

Principal Investigator: Dr. Alvitta Ottley

Your Role: Graduate Research Assistant

Contribution: Collaborated on the development of an adaptive visualization evaluation framework. Contributed to research on visualization literacy in both humans and visual language models (AI), and co-lead investigations into trust in visualizations. These efforts resulted in several peer-reviewed publications.

Research Experience

Visual Interface and Behavior Exploration Lab (VIBE) @ Washington University

- 2021 - **Graduate Research Assistant.**
Conduct research on visualizations and human perception, design user studies, and apply AI/ML (e.g., MLLMs and Computer Vision) to improve visualization literacy and communication.
Skills: Data Visualization, Statistical Analysis, Psychometrics, Crowdsourcing, AI/ML, Computer Vision, MLLMs, Fine tuning, Prompt engineering, UX Design

American Institutes for Research | Arlington, VA

- 2024 **Doctoral Student Research Intern.**
Developed interactive visual analytics tools and conducted data-driven analyses to explore environmental impacts on education outcomes using air quality and national assessment datasets.
Skills: D3.js, React.js, Node.js, Statistical Analysis (Descriptive & Inferential), Data Visualization, API Data Extraction, Clustering Algorithms, Large Scale Data Analysis

The Brent Lab @ Washington University

- 2021 **Graduate Research Assistant.**
Built image processing and deep learning pipelines (OpenCV + PyTorch) to automate fungal microscopy analysis, enabling efficient segmentation and phenotype classification.
Skills: Python, OpenCV, Image Processing, PyTorch, CNN, Deep Learning

Mentorship

Name	Current Position	Year	Context
Hangxiao Zhu	Ph.D. Student @ Texas A&M	2024	Master Thesis
Danni Liu	Ph.D. Student @ UChicago	2023	Undergraduate Research Assistant
Amee Rothman	Data Visualization Manager @ UNHCR	2023	Undergraduate Research Assistant

Academic Service

- Organizing Committee**
Visualization in Data Science (VDS) @ IEEE VIS 2024 (*Web Chair and Paper Session Chair*)
- Conference Reviewer**
ACM Conference on Human Factors in Computing Systems (CHI) 2025
IEEE Visualization Conference (VIS) 2024
Visualization in Data Science (VDS) @ IEEE VIS 2024
IEEE Pacific Visualization Conference (PacificVis) 2023
Visualization for Communication (VisComm) Workshop @ IEEE VIS 2022-2023

Professional & Leadership Experience

- 2024 **President**, Association of Graduate Engineering Students (AGES), Washington University in St. Louis.
- 2023-2024 **Consultant**, The Biotechnology and Life Science Advising (BALSA), St. Louis, MO.
- 2019-2021 **Co-Founder & President**, Beloit Investment Club, Beloit College.
- 2019 **Funding Board Director**, Beloit Student Government, Beloit College.