
Research Interests

Data Visualization, Visual Analytics, Human-Computer Interaction

Education

- Expected 2024 **Ph.D. in Computer Science**, *Washington University in St. Louis*, St. Louis, MO.
Advisor: Dr. Alvitta Ottley
- 2023 **M.S. in Computer Science**, *Washington University in St. Louis*, St. Louis, MO.
Advisor: Dr. Alvitta Ottley
- 2019 **B.A. in Computer Science**, *New College of Florida*, Sarasota, FL.
Advisor: Dr. Matthew Lepinski

Research Experience

- Aug. 2019 – present **Graduate Research Assistant**, *Washington University in St. Louis*, St. Louis, MO.
Visual Interface and Behavior Exploration (VIBE) Lab
Advisor: Dr. Alvitta Ottley
- June 2018 – Aug. 2018 **Data Visualization Research Intern**, *Washington University in St. Louis*, St. Louis, MO.
Big Data Analytics REU Program
Mentors: Drs. Alvitta Ottley and William Yeoh
- June 2017 – Aug. 2017 **Data Science Research Intern**, *Worcester Polytechnic Institute*, Worcester, MA.
Data Science REU Program
Mentors: Drs. Emmanuel Agu and Elke Rudensteiner

Teaching Experience

- Aug. 2023 – Dec. 2023 **Instructor**, *Washington University in St. Louis*, St. Louis, MO.
Course: Introduction to Visualization (CSE 457A)
- Aug. 2020 – Dec. 2020 **Assistant Instructor**, *Washington University in St. Louis*, St. Louis, MO.
Course: Introduction to Visualization (CSE 457A)
- Aug. 2017 – Dec. 2018 **Teaching Assistant**, *New College of Florida*, Sarasota, FL.
Courses: Object-Oriented Design, Functional Problem Solving with Scheme, Social and Ethical Issues in Computer Science

Mentoring Experience

- Spring & Fall 2023 Chaehun Lim, M.S. in Computer Science (WashU '23)

Publications

In Submission

- 2024 **Sunwoo Ha**, Chaehun Lim, R. Jordan Crouser, and Alvitta Ottley. ConFides: A Visual Analytics Solution for Automated Speech Recognition Analysis and Exploration [In Submission to *IEEE Transactions on Visualization and Computer Graphics* 2024].

Conference Papers

- 2024 **Sunwoo Ha**, Shayan Monadjemi, and Alvitta Ottley. Guided By AI: Navigating Trust, Bias, and Data Exploration in AI-Guided Visual Analytics. *Computer Graphics Forum*, 2024.

- 2023 **Sunwoo Ha**, Shayan Monadjemi, Roman Garnett, and Alvitta Ottley. A Unified Comparison of User Modeling Techniques for Predicting Data Interaction and Detecting Exploration Bias. In *IEEE Transactions on Visualization and Computer Graphics*, 2023.
- 2023 Melanie Bancilhon, Amanda Wright, **Sunwoo Ha**, R. Jordan Crouser, and Alvitta Ottley. Why Combining Text and Visualization Could Improve Bayesian Reasoning: A Cognitive Load Perspective. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*, CHI '23. Association for Computing Machinery, 2023.
- 2022 Shayan Monadjemi, **Sunwoo Ha**, Quan Nguyen, Henry Chai, Roman Garnett, and Alvitta Ottley. Guided Data Discovery in Interactive Visualizations via Active Search. In *2022 IEEE Visualization and Visual Analytics (VIS)*, 2022.
- 2020 Christabel Wayllace, **Sunwoo Ha**, Yuchen Han, Jiaming Hu, Shayan Monadjemi, William Yeoh, and Alvitta Ottley. DRAGON-V: Detection and Recognition of Airplane Goals with Navigational Visualization. In *Proceedings of the AAAI Conference on Artificial Intelligence*, 2020.

Workshop Papers and Poster Presentations

- 2023 **Sunwoo Ha**, Chaehun Lim, R. Jordan Crouser, and Alvitta Ottley. Visual Analytics System for AI-Based Speech-to-Text Analysis and Exploration. In *Laboratory for Analytic Sciences (LAS) Research Symposium*, 2023.
- 2021 **Sunwoo Ha** and Alvitta Ottley. The Role of Trust in Visual Analytic Provenance. In *ProvViz: Workshop on Provenance and Visualization*, 2021.
- 2020 **Sunwoo Ha**, Adam Kern, Melanie Bancilhon, and Alvitta Ottley. Expectation Versus Reality: The Failed Evaluation of a Mixed-Initiative Visualization System. In *IEEE Workshop Celebrating the Scientific Value of Failure (FailFest)*, 2020.
- 2017 **Sunwoo Ha**, Courtney Burns, and Andrew Schade. EmotivoMOOD (EMU): Using Machine Learning Methods to Detect Depression by Voice. In *MIT/IEEE Undergraduate Research Tech Conference (URTC)*, 2017.

Technical Skills

Languages: Python, JavaScript, HTML, CSS, R, Java, MATLAB

Libraries: React, D3.js, NodeJS, Flask, Numpy, Pandas, Scikit-Learn, Plotly

Tools: Linux, Git (Command Line), MySQL

Honors & Awards

- 2024 **Honorable Mention** for "Guided By AI: Navigating Trust, Bias, and Data Exploration in AI-Guided Visual Analytics" at EuroVis 2024 (Odense, Denmark)
- 2022-2023 Recipient of **Inclusivity and Diversity Scholarship** to attend IEEE VIS
- 2019 **Dean's Select Fellowship**, Washington University in St. Louis
- 2015 **Presidential Scholarship**, New College of Florida

Services and Activities

- 2023 Acceptance to participate in 2023 IEEE VIS Doctoral Colloquium
- 2023 Represented WashU and recruited prospective students at Tapia
- 2022 Visualization for Communication (VisComm) Student Committee Member
- 2022 Represented WashU and recruited prospective students at Grace Hopper Conference (GHC)

Conference Reviewing

- 2023-2024 ACM SIGCHI Conference
- 2021- 2023 IEEE Visualization (VIS) Conference