

Lemara Williams

PhD Student, Washington University in St. Louis

Visualization & Human-AI Collaboration

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Education

Washington University in St. Louis

PhD, Computer Science

St. Louis, MO

2024 - present

Virginia Polytechnic Institute of Technology

MS, Computer Science & Applications

Blacksburg, VA

2022 - 2024

Amherst College

BA, Computer Science, Music

Amherst, MA

2018 - 2022

- Summa Cum Laude
- Best senior thesis on a critical or compositional music topic

Professional Experience

2024 Responsible and Inclusive Technologies Research Intern, IBM Research

- Co-led a study to analyze the perceptions of IT professionals regarding prompting recommendations
- Utilized various qualitative research methods, including interviews, surveys, and thematic analysis, to evaluate and optimize user experiences for a web-based application

2023-2024 Research Assistant, Virginia Tech

- Worked under Dr. Chris North to visualize interesting movements of diachronic word embeddings
- Added semantic meaning to such visualizations through temporal high dimensional clustering, global and local topic modeling of millions of word embeddings over 2 years

2023 Software Performance Analyst Intern, IBM Research

- Identified where explainability can be added to sub-sequence clustering techniques for ease of end-user interpretation
- Investigated the periodicity of features and their seasonality to establish timetables of activity

2022 Software Development Research Intern, IBM Research

- Working on an AI Infrastructure Optimizer extension to identify zombies in the cloud, or workloads with a nonproductive status
- Identifying characteristics of a nonproductive status for a workload in the cloud and building a machine learning workflow for classification

Skills

Programming Languages: Java, Python, MATLAB, LaTeX, NumPy, Pandas, Scikit-Learn, HTML/CSS, MySQL, D3, JavaScript

Software: Linux, Kubernetes, Tableau, Jupyter Notebooks, Microsoft Office, Figma

Publications

Daniel Palamarchuk*, **Lemara Williams*** (* equal contribution), Brian Mayer, Thomas Danielson, Rebecca Faust, Larry Deschaine, Chris North. "Visualizing Temporal Topic Embeddings with a Compass ". *IEEE Transactions on Visualization and Computer Graphics*, 31, 2024. *(to appear)*

Awards

2024 **AI-ACCESS Fellowship**, Washington University in St. Louis
2024 **Clare Boothe Luce Graduate Fellowship**, Washington University in St. Louis
2024, 2022 **GEM Fellowship**, The National GEM Consortium

Teaching Experience

Spring 2023 **Data Matter**, Teaching Assistant
Fall 2022 **Professionalism in Computing**, Teaching Assistant