Ketevan Gallagher

KetevanGallagher@gmail.com • 571-389-0115 • KetevanGallagher.com

Skills

Programming Languages: Python, C, Java, MATLAB, JavaScript, HTML, CSS.
Software: Onshape, Arduino Software, Cisco Software, Git, GitHub, GitLab, OpenStreetMap, ArcGIS.
Programming Libraries: NumPy, Pandas, PyTorch, SciPy, TensorFlow, MatPlotLib, NetworkX, Keras.

Education

University of Toronto   Toronto, ON
Bachelor's of Applied Science in Computer Engineering, Class of 2028, GPA: 3.9/4.

Thomas Jefferson High School for Science and Technology   Alexandria, VA
Class of 2024, GPA: 4.32/4, SAT: 1540.
Senior Research Project
"Analyzing and Classifying Program Evaluations from the United States Agency for International Development (USAID)."
- Used Natural Language Toolkit, TensorFlow, and PyTorch to create a machine learning model that classifies USAID program evaluations as impact or performance evaluations and achieved 85% validation accuracy.

Work Experience

Research Internship, Emory University, Lab of Dr. Andreas Züfle
Research Intern   Emory University, Georgia, August 2023– Present
- Created and tested algorithms for matching social networks to spatial locations.

Aspiring Scientists Summer Internship Program (ASSIP)
ASSIP is a prestigious summer internship where students work with university professors on university-level research.
Summer Intern   Emory University, Georgia, June 2023– August 2023
- Created synthetic geosocial network algorithms in Python by incorporating real-world location data into existing spatial network algorithms and authored a paper, "[Synthetic Geosocial Network Generation]()," on geosocial network algorithms.
- Algorithms in paper are used as the basis for [PySGN Python package]().
- Presented at the 7th ACM SIGSPATIAL Workshop on Location-based Recommendations, Geosocial Networks and Geoadvertising (LocalRec 2023) of the ACM SIGSPATIAL conference in Hamburg, Germany.

Summer Intern   George Mason University, Virginia, June 2022– August 2022
- Created a synthetic social network by using an agent-based model of human mobility in Fairfax County, Virginia.
- Co-authored the paper "[Human Mobility-Based Synthetic Social Network Generation]()" that compared the synthetic social network to classical social network models.
- Presented paper at the 2nd ACM SIGSPATIAL International Workshop on Animal Movement Ecology and Human Mobility (HANIMOB 2022) of the ACM SIGSPATIAL conference in Seattle, Washington.

Activities

aUToronto   September 2024–Present
Mapping Team Lead
aUToronto is the self-driving car design team at University of Toronto that competes in the SAE/GM AutoDrive Challenge.
- Converted maps Google Earth maps, added altitude data to maps, and added functionality to mapping GUI.

Awards

- University of Toronto Engineering International Scholar Award (2024)
- ACM SIGSPATIAL GIS Travel Grant Award (2022 and 2023)
- 2024 National Merit Scholar Finalist