Ketevan Gallagher

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Skills

Programming Languages: Python, C, C++, Verilog, Java, MATLAB, LaTeX, HTML, CSS, JavaScript.
Software: Cisco Software, Git, GitHub, GitLab, Onshape, Arduino Software, 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 + PEY Co-op, 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 in Python for matching social networks to spatial locations and authored paper "[Your Friends Reveal Where You Are: Location Estimation based on Friends' Locations in Geosocial Networks](#)" on results.
- Presented at the SpatialConnect workshop of the 2025 ACM SIGSPATIAL conference in Minneapolis, Minnesota.

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 the [PySGN Python package](#).
- Presented at the LocalRec workshop of the 2024 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 HANIMOB workshop of the 2022 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 team maps to 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