Mirabel Reid

mirabelreid@gmail.com | LinkedIn Profile

EDUCATION

Georgia Institute of Technology, *Atlanta, GA* — Sep 2020-Present
Pursuing PhD in Computer Science — GPA: 3.91

University of Pittsburgh, *Pittsburgh, PA*
Bachelor of Science — Sep 2016-April 2020
Double Major in Computer Science, Mathematics — GPA: 4.0

Technical Skills: Python, MATLAB, C++, SQL, Git

RESEARCH INTERESTS

- Mathematically tractable models for neural computation.
- Random Graphs and the probabilistic analysis of recurrent processes.
- Interplay between machine and human learning and computation.

WORK EXPERIENCE

Max Planck Institute for Intelligent Systems — *Tübingen, DE*
Intern — May 2023-Aug 2023

Los Alamos National Laboratory — *Los Alamos, NM*
Research Intern — May 2022-Oct 2022

- Researched improvements for Machine Learning workflows for scientific applications.
- Built a metadata visualization platform using **Python** and **SQL** to enable data exploration.

Software Engineering Institute — *Pittsburgh, PA*
Intern: Emerging Technology Center, Software Solutions Division — Jan 2020-Aug 2020

- Investigated novel applications of Graph Neural Networks for software development
- Implemented machine learning solutions in **PyTorch** and **ROS**

Georgia Tech — *Atlanta, GA*
Civic Data Science Intern — May 2019-Aug 2019

- Collaborated with city officials and research faculty to analyze the impact of federal housing policies in the city of Albany, Georgia
- Created a research-grade database by connecting disparate civic data sources with **Python** and **SQL**

University of Pittsburgh — *Pittsburgh, PA*
Research Assistant — Jan 2017-Dec 2019

- Researched a mathematical model for common properties of natural transportation networks.
- Built algorithms in **MATLAB** and **C++** to automatically process Digital Elevation Models

HONORS/AWARDS

ARC Triad Research Fellowship — Nov 2021
Georgia Tech Presidential Fellowship — Apr 2020
Culver Award (Achievement in Mathematics) — Apr 2020
Putnam Mathematics Competition, Top 20% — Dec 2019
Brackenridge Research Fellowship — May 2018

PUBLICATIONS AND PRESENTATIONS

Reid, Mirabel, and Santosh S. Vempala. "The k-Cap Process on Geometric Random Graphs", conference paper, **COLT 2023 (Forthcoming)**

"Assemblies and the k-Cap Process: The Effects of Locality on Neural Firing Dynamics", Poster presentation, **Computational and Systems Neuroscience (COSYNE) 2023**

TEACHING

- *Fall 2021* Teaching Assistant for the Introduction to Graduate Algorithms
- *Spring 2019* Teaching Assistant for Discrete Mathematics