Christian X. Engman

561-603-6054 | cengman3@gatech.edu | linkedin.com/in/christian-engman/ | github.com/cengman2017 |

Education

Georgia Institute of Technology | Atlanta, GA *June 2022 – December 2025*
BS, Computer Science and Mathematics, GPA: 3.97 Faculty Honors

Coursework: Algorithms, Data Structures, Operating Systems, Processor Design, Compilers, Computer Organization, Systems and Networks, Machine Learning, Deep Learning, Statistical Theory for Machine Learning, Probability Theory, Statistical Theory, Graph Theory, Coding Theory, Numerical Linear Algebra, Iterative Methods for Systems of Equations, Numerical Approximation Theory, Real Analysis, Abstract Algebra, Topology, Differential Geometry

Work Experience

Los Alamos National Laboratory *May 2025 – Present*
Student Research Intern *Atlanta, GA, Remote*

- Generating synthetic data for the training of ML models to reconstruct objects from radiological measurements.
- Training reduced-order models for forward and inverse multi-probe radiographical problems.
- Developing software in Python using NumPy, SciPy, matplotlib, and proprietary LANL software.

Meta *May 2024 – August 2024*
Software Engineering Intern *Seattle, WA*

- Built debugging tools for Meta's user-generated AI characters as they launch on Facebook and Instagram
- Presented critical information to developers about discoverability, visibility, and ranking to save development time.
- Developed a backend in PHP Hack, using GraphQL for API requests, and React and Relay for a web app frontend.

Georgia Tech School of Mathematics *August 2023 – May 2024*
Undergraduate Teaching Assistant, Differential Equations *Atlanta, GA*

- Led 30 student recitations and aimed at strengthening students' understanding of course material twice weekly.
- Held weekly office hours and graded assignments to assist instructors in managing 100+ student course sections.

Amazon *May 2023 – August 2023*
Software Development Engineering Intern *Bellevue, WA*

- Developed and deployed a microservice to generate compliance documents for $300M/yr of imports to China.
- Safely migrated 10 requests/sec. of traffic from legacy system to new microservice with no negative client impact.
- Utilized Java for development, deploying on native AWS platforms integrated with Amazon's microservice fabric.

Research

Sparse Recovery of Poincare-Steklov Operators *January 2023 - Present*
Georgia Tech School of Computational Science and Engineering

- Developing numerical algorithms for the sparse approximate recovery of Poincare-Steklov operators of elliptic partial differential equations from small amounts of data.`
- Exploring applications in elliptic inverse problems, including electric impedance tomography, and domain decomposition methods for elliptic problems.

Presentations

Sparse Recovery of Poincare-Steklov Operators *October 2024*
SIAM MDS 2024

- Presented in-progress work at the SIAM Mathematics for Data Science conference 2024 Poster Session.

Organizations

President, Big O Theory Club | Georgia Tech *April 2023 – Present*

- Help to coordinate club activities and events for a club with 20+ members.
- Present on theoretical computer science topics like graph algorithms, computing theory, and numerical methods.

Awards

Top 500 Competitor – Mathematical Association of America, Putnam Competition – Dec 2021, 2022, and 2023
Georgia Tech PURA Travel Award – $1000 to present at SIAM MDS 2024

Skills

Programming Languages: Python, C, Java, JavaScript, C++, Julia, PHP
Technical: Web Development, Machine Learning, Data Analysis, Cloud, Systems Programming