

Stephanie J. Henderson

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EDUCATION

M.S. in Computer Science, Georgia Institute of Technology, Atlanta, GA August 2023 - May 2024

- GPA: 3.75/4.0
- Concentration: Machine Learning

B.S. in Computer Science, Georgia Institute of Technology, Atlanta, GA August 2020 - May 2023

- Highest Honors, GPA: 3.86/4.0
- Concentrations: Information Internetworks, Intelligence

Relevant Coursework: Machine Learning Theory, Deep Learning, Natural Language Processing, Computer Vision, Knowledge-Based Artificial Intelligence, Design and Analysis of Algorithms, Graduate Algorithms, Numerical Linear Algebra, Statistics and Applications, Applied Combinatorics, Multivariable Calculus, Computer Networks, Systems and Networks, Computer Architecture, Mobile Computing and the Internet of Things, Information Security, Cognitive Science, Data and Visual Analytics, Database Systems, Physics I: Mechanics, Physics II: Electricity and Magnetism

RESEARCH INTERESTS

Deep Learning, Machine Learning Theory, Machine Learning on the Edge, Game Theory, Systems and Networks for Machine Learning, Efficient Machine Learning, Design and Analysis of Algorithms

TEACHING EXPERIENCE

Georgia Institute of Technology College of Computing, Atlanta, GA

- **Head Graduate Teaching Assistant, *Design and Analysis of Algorithms*** Spring 2024
Professor Merrick Furst, PhD (200+ students)
Designed examinations and homework assignments, led weekly TA meetings and managed a group of 15-20 TAs, scribed lecture notes for every lecture, held two hours of weekly office hours, graded student assignments, answered questions on the student discussion forum, and proctored examinations
- **Graduate Teaching Assistant, *Design and Analysis of Algorithms*** Fall 2023
Professor Will Perkins, PhD (200+ students)
Designed homework assignments, held two hours of weekly office hours, graded student assignments, answered questions on the student discussion forum, and proctored examinations
- **Head Undergraduate Teaching Assistant, *Design and Analysis of Algorithms*** Spring 2023
Professor Constantine Dovrolis, PhD, (200+ students)
Designed practice examinations and study guides, managed a group of 10-15 TAs, held two hours of weekly office hours, graded student assignments, answered questions on the student discussion forum, proctored examinations, and delivered the in-class lecture on Maximum Bipartite Matching and Ford-Fulkerson's Algorithm for Max Flow
- **Undergraduate Teaching Assistant, *Design and Analysis of Algorithms*** Fall 2022
Professors Dana Randall, PhD and Gerandy Brito, PhD, (400+ students)
Designed practice examinations and study guides, held weekly office hours, graded student assignments, answered questions on the student discussion forum, proctored examinations, and led review sessions

- **Head Undergraduate Teaching Assistant, *Introduction to Object-Oriented Programming*** Spring 2022
Professor Richard Landry (700+ students)
 Designed programming assignments, led two weekly TA meetings and managed a group of 25-30 TAs, co-led a weekly 75-minute recitation, held four hours of weekly office hours, graded student assignments, answered questions on the student discussion forum, and proctored examinations
- **Undergraduate Teaching Assistant, *Introduction to Object-Oriented Programming*** Fall 2021
Professors Richard Landry and Susan Watson-Phillips (700+ students)
 Designed programming assignments, co-led a weekly 75-minute recitation, created 1-3 weekly participation review quizzes, held four hours of weekly office hours, graded student assignments, answered questions on the student discussion forum, and proctored examinations
- **Undergraduate Teaching Assistant, *Introduction to Object-Oriented Programming*** Summer 2021
Professors Richard Landry and Susan Watson-Phillips (150+ students)
 Designed programming assignments, co-led a weekly 75-minute recitation, answered questions online during the remote lectures, held three hours of weekly office hours, graded student assignments, and answered questions on the student discussion forum

RESEARCH EXPERIENCE

Georgia Institute of Technology, Embedded Pervasive Lab, Atlanta, GA

Undergraduate Research Assistant

August 2022 - December 2022

- Studied MicroEdge, a cost-efficient edge computing system for scalable and low latency image processing
- Performed benchmark testing by implementing client and server applications to facilitate data transfer across nodes within different network architectures of edge devices (Raspberry Pi 4's) for machine learning applications
- Investigated methods to accelerate machine learning workloads, particularly for real-time inference in low-latency environments, and advocated for the integration of Kubernetes with FPGAs to optimize resource management and improve system efficiency

PROFESSIONAL EXPERIENCE

Symbotic: Software Engineer, Wilmington, MA

June 2024 - Present

- Implement software solutions that enhance the scalability and efficiency of automated robotic storage and retrieval systems in a high-volume warehouse environment
- Collaborate with cross-functional teams to meet architectural requirements, ensuring robust integration with automated warehouse robots
- Proactively anticipate and address potential on-site scenarios by implementing adaptive algorithms and fault-tolerant solutions

Microsoft: Software Engineer Intern, Atlanta, GA

May 2023 - August 2023

- Implemented a specialized chatbot web application for relevant resource retrieval to help increase developer productivity within a Microsoft team of 100-150 developers
- Designed the application to recommend pertinent Master Data Management (MDM) metrics, Kusto table data, and production log information based on developers' inquiries
- Created an embedding pipeline consisting of python scripts to clean large datasets and reduce noise, which required researching tools to use for efficient and diverse data collection, such as implementing a Selenium web crawler to download JSON data of widgets from Jarvis dashboards

Slalom Build: Software Engineer Intern, Atlanta, GA

June 2022 - August 2022

- Delivered an internal web application to gauge the emotional well-being and productivity metrics of a software development team during sprints by integrating an interactive web application into sprint retrospectives
- Completed full-stack work including the implementation of the landing and login pages of the web application, persistence of user information using local storage, and integration of the login page with a database for secure user data storage.
- Conducted a thorough analysis of candidate application architectures and advocated for the use of an AWS serverless architecture, including AWS Lambda, API Gateway, and DynamoDB to improve scalability and reduce costs

LEADERSHIP AND MENTORSHIP EXPERIENCE

Freshman Peer Mentor, Georgia Institute of Technology, Atlanta, GA

Fall 2022

- Served as a mentor to a group of 10-15 students, offering advice on opportunities at Georgia Tech
- Provided encouraging feedback on student resumes and presentations over their chosen major concentrations

FASET Freshman Orientation Leader, Georgia Institute of Technology, Atlanta, GA

Summer 2021

- Guided incoming students with course registration and answered questions regarding their transition to Georgia Tech
- Led a group of 15-20 students during orientation day and shared Georgia Tech traditions to foster a welcoming environment to Georgia Tech

SKILLS

Programming: Proficient in Python, Java; experienced in C#, Julia, JavaScript (React), R, HTML, CSS**Data and Visualization:** SQL, Selenium, D3.js, Matplotlib, Tableau**Machine Learning:** PyTorch, Pandas, OpenAI API, TensorFlow, NumPy**Tools:** Wireshark, Visual Studio Code, Android Studio, JetBrains IDEs, Postman, Git, GitHub