Suzan Manasreh

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Education

Georgia Institute of Technology — Atlanta, GA

Bachelor of Science, Computer Science; ***GPA: 3.82/4.00*** — *Expected: December 2024*

Threads: System-Architecture/Modeling-Simulation

Awards: Faculty Honors, Dean's List, President's Undergraduate Research Award

Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Networking, Operating Systems, Digital Design, Processor Design, Intro to AI, Machine Learning, High-Performance Computing, Statistics, Linear Algebra, Differential Equations

Leadership: Operating Systems TA (Fall 2024), Objects & Design TA (Spring-Fall 2023)

Activities: Rogues Gallery Neuromorphic Computing Team (ML for real-time object detection)

Georgia Institute of Technology — Atlanta, GA

Master of Science, Computer Science — *Expected: December 2025*

Skills

Languages: C/C++, Python, Java, Javascript, Ruby, Go, Fortran, Shell, Matlab, ASM, VHDL, Verilog

Tools & Technologies: Node.js, React.js, Ruby on Rails, PostgreSQL, Nginx, Linux/Unix, Git, Docker, Gerrit, Jenkins, Gitlab, Jira, Postman, YAML, Jupyter Notebooks, Matplotlib, NumPy, Sci-kit Learn, MPI, Paraview, Quartus Prime, FPGA's, Compilers, CMake, VSCode, XCode, Oscilloscopes, CAD tools

Work Experience

Full Stack Software Engineering Intern — Remote

Cisco Meraki — *May 2023 – August 2023*

- Worked with the DashXL horizontal scaling team to design, develop, test, and deploy the REST API for a tool that adds or removes feature flags for customer's cloud network configurations on PostgresSQL servers.
- Built a backend with Ruby on Rails and Go that sends out requests across distributed system shards and aggregates the data back for the user. Tested with RSpec and Go mock API tests.

Software Developer Intern — Remote

IBM — *May 2022 – August 2022*

- Worked with the Dependency Based Build team on Z/OS to get their API ready for a new release by fixing a security issue, correcting defects, and developing a new feature.
- Used Java, Javascript, HTML, and Jenkins to design, develop, and test a method to statically generate customer-facing build report web pages from parsed data.

University Experience/Projects

ML Project — Atlanta, GA

CS 7641: Machine Learning — *October 2024 – Present*

- Aggregated heart disease datasets using pandas and reduced features using PCA. Used sklearn and PyTorch to run decision tree, random forest, neural net, and SVM supervised learning algorithms with 90%+ accuracy

Teaching Assistant: Operating System Design — Atlanta, GA

College of Computing at Georgia Tech — *August 2024 – Present*

- Helped students with C-based kernel hacking labs on xv6 Unix-like teaching OS run through Docker container.
- Developed and taught lecture and lab material on virtual memory, multi-threading, scheduling, and file systems.

Research Assistant — Atlanta, GA

Computational Physics Group at Georgia Tech — *January 2024 – August 2024*

- Achieved 11% speedup on MPI-parallelized Fortran/C++ simulator by updating linear algebra libraries.
- Created new build system for cross-platform builds across MacOS, Linux, and other systems with CMake/Shell.
- Created 3D simulations of capsule flow through meshes made with Coreform Cubit, analyzed simulation data with NumPy and SciPy, and ray-traced simulation graphics in Paraview with GPU's. Accepted to SC'24.
- Created Github Actions CI/CD pipeline with YAML files for testing and profiling subroutines on an HPC cluster.