Suzan Manasreh

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Education

Georgia Institute of Technology — Atlanta, GA

Bachelor of Science, Computer Science; ***GPA: 3.8/4.00*** — *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, Networks, Operating Systems, Digital Design Lab, Processor Design, Intro to AI, Machine Learning, High-Performance Computing.

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

Georgia Institute of Technology — Atlanta, GA

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

Skills

Languages: C/C++, Python, Java, Go, Javascript, Ruby, 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, Jupyter Notebooks, Matplotlib, 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 team to design, develop, test, and deploy the API for a tool that adds or removes feature flags for customer's cloud network configurations.
- Built a backend with Ruby on Rails and Go that sends out requests across 100's of units of a distributed system and aggregates the data back for the user. Tested with RSpec and Go unit tests.

Software Developer Intern — Remote

IBM — *May 2022 – August 2022*

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

University Experience/Projects

Research Assistant — Atlanta, GA

Computational Science & Engineering at GaTech — *May 2024 – August 2024*

- Achieved 11% speedup on large-scale MPI-parallelized Fortran simulator code by updating linear algebra libraries.
- Created new build system for cross-platform builds across MacOS and other systems with CMake/Shell.
- Created 3D simulations of blood flow through microfluidic device meshes, analyzed time-series data with matplotlib and numpy, and ray-traced simulation graphics in Paraview with GPU's. Accepted to SC'24.
- Created Github Actions CI/CD pipeline for testing and profiling subroutines on distributed system (HPC cluster).

Undergraduate Researcher — Atlanta, GA

CRNCH Rogues Gallery at GaTech — *January 2023 – December 2023*

- Helped create SLAM algorithm with spiking neural networks and Lava framework for neuromorphic hardware.
- Used YOLOv5 and PyTorch for real-time object detection with TensorRT on the Jetson Nano.

Servo Motor Peripheral — Atlanta, GA

ECE 2031: Digital Design Lab — *November 2023 – December 2023*

- Programmed different modes for control of hobby servo motor movements such as velocity and spin angle through DE-10 FPGA board switch controls, memory-mapped I/O, and VHDL in Quartus Prime.
- Created hobby servo game where a user has to guess spin angle of servo motor by selecting a different switch.