Suzan Manasreh

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Education

Georgia Institute of Technology — Atlanta, GA
Master of Science, Computer Science (BSMS program) — *Expected: December 2025*

Georgia Institute of Technology — Atlanta, GA
Bachelor of Science, Computer Science; ***GPA: 3.82/4.00*** — *2020 - 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, ML, HPC, Distributed Systems, Info-Security

Activities: Rogues Gallery Neuromorphic Computing Team (object detection + autonomous navigation)

Skills

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

Tools & Technologies: NodeJS, ReactJS, Ruby on Rails, PostgreSQL, Figma, Linux/Unix, Git, Github Actions, Docker, Gerrit, Jenkins, Gitlab, Postman, Jupyter Notebooks, Matplotlib, NumPy, Scikit-Learn, Pwntools, MPI, Paraview, Quartus Prime, FPGA's, RPC, CMake, VSCode, Oscilloscopes, CAD tools

Experience

Teaching Assistant — Atlanta, GA
College of Computing at Georgia Tech — *January 2023 – December 2024*

- Helped 100+ students implement kernel optimizations in C on xv6 Unix-like teaching OS in CS 3210: Design of OS
- Led lab sessions on virtual memory, multi-threading, scheduling, operating system login security, and file systems.
- Helped develop CS 2340 course website in React/Typescript/CSS and back-end content management system.
- Assessed 500+ student's on design patterns, agile, and mobile game development in Android Studio/SwiftUI.

Research Assistant — Atlanta, GA
Computational Physics Group at Georgia Tech — *May 2024 – August 2024*

- Achieved 11% speedup on MPI-parallelized Fortran/C++ simulator by optimizing linear algebra libraries.
- Created new build system for cross-platform builds across MacOS, Linux, and more with CMake/Shell/Python.
- Created 3D simulations of CFD flow through meshes made with Coreform Cubit CAD tool, 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 for testing and profiling subroutines on HPC CPU cluster.

Full Stack Software Engineering Intern — Remote
Cisco Meraki — *May 2023 – August 2023*

- Closed 5 tickets/user stories with dashboard horizontal scaling team while building the REST API for a tool that adds/removes feature flags for customer's cloud network configurations on PostgreSQL servers and infra tests.
- Built a backend with Ruby on Rails and Go that sends out requests across AWS distributed system shards and aggregates the data back for the user. Created RSpec and Go unit tests with 97% coverage.

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 Javascript security issue, correcting a defect, and developing a new feature.
- Used Java, Javascript, HTML, and Jenkins to design, develop, test, and deploy a method to statically generate customer-facing build report web pages from serialized data.

Projects

Capture the Flag — Atlanta, GA
CS 6035: Information-Security — *January 2025 – Present*

- Exploited Web/Swagger API vulnerabilities through XSS, CSRF, SQL injection, and hacking JWT tokens.
- Captured flags through remote-code execution on Log4j app and injecting code through buffer overflows in C.