Smaran Mishra

EDUCATION

Georgia Institute of Technology

BS Computer Science

- Minor in Physics
- GPA: 3.58

PROFESSIONAL EXPERIENCE

Qualcomm

05/2023 - 08/2023 | San Diego, CA

07/2020 - 06/2024 | Atlanta, GA

Software Engineering Intern

- Worked on the Graphics Test Development team to improve the core test framework for Snapdragon graphics test applications for the graphics division.
- Designed and implemented a new configuration schema for 9 distinct test applications with additional libraries and tools, adding functionality and automation
- Wrote python scripts, documentation, build files for cross platform build capability

Georgia Institute of Technology

05/2022 - 12/2022 | Atlanta, GA

Undergraduate Teaching Assistant

- Fulfilled weekly duties preparing, presenting and grading course materials for 200+ undergraduate students
- Wrote shell scripts to simplify the installation process and improve the course experience for students

RESEARCH

High Performance Architecture Lab *⊘*

05/2022 - Present | Atlanta, GA

Georgia Institute of Technology

- Developed a suite of benchmarks to analyze GPU performance across various NVIDIA architectures.
- Demonstrated vulnerabilities in the CUDA architecture that allow for exploitable memory overflows and proposed address sanitization solutions that minimize impact on runtime
- Proposed a novel power side-channel attack on large language models like GPT-2 and looked into countermeasure strategies to reduce vulnerabilities.

Medford Group *∂*

01/2021 - 05/2021 | Atlanta, GA

Georgia Institute of Technology

- Completed paper reviews and trained in a team with other undergraduates
- Calculated energy levels for different molecules with Density Functional Theory in Python using tools like Anaconda, Jupyter and AMPTorch

SKILLS

Languages (Python, C, C++, CUDA, Java, C#, HTML, CSS, Shell Script, R, Matlab)

Software (Linux, Docker, Git, Jira, Gerrit, Visual Studio, Android Studio, CMake)

LEADERSHIP

WreckCon President

06/2022 - present

- Led a small team to host a convention showcasing student culture at Georgia Tech with a total attendance of nearly 1,200 people in our first year
- Canvassed for and handled a budget of nearly \$30,000 and managed to deliver on all goals under-budget

Junior/Senior Executive Officer

01/2021 - 05/2023

Georgia Tech Dungeons & Dragons

- Co-founded and helped establish a registered student organization that grew to 110 dues-paying members within a vear
- Took over and helped cement the club as one of the largest at Georgia Tech, with 800 members on our communication channels