ALEXANDER ELLIOTT

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EDUCATION

Georgia Institute of Technology, Atlanta, GA *Aug 2018 - Present*
Candidate for Master of Science in Computer Science (expected May. 2023) GPA: 3.7 / 4.0
Bachelor of Science in Computer Science (awarded Dec. 2021) GPA: 3.9 / 4.0

EXPERIENCE

Georgia Institute of Technology
Graduate Research Assistant *Jan 2022 - Present*

- Worked with four under-served GA communities to monitor municipal wireless ISP deployments
- Created Raspberry Pi-based server and dashboard to collect and visualize network performance metrics
- Currently working on remote GA coastal flood monitoring project modernizing water level sensors by connecting them to the Swarm satellite constellation and constructing a remote management system

Georgia Institute of Technology
Undergraduate Research Assistant *Jan 2021 - Dec 2021*

- Research with Dr. Ellen Zegura focused on exploring novel methods of extending internet boundaries
- Worked on approaches to extend connectivity in rural areas using the Internet of Things LoRa protocol
- Computing Research Association (CRA) Outstanding Undergraduate Researcher Award Finalist

Progressive Insurance
Systems Engineer Intern *May 2021 - Aug 2021*

- Worked with the Systems & Infrastructure Operations team managing the company's distributed computing environment and supporting server virtualization in VSphere
- Managed servers' status in load balancers during maintenance and system failures
- Diagnosed and remediated remote claims-site routers with the Network & Telecom Operations Center
- Coordinated directly with remote contacts and vendors such as AT&T and Verizon on tunnel repairs

RESEARCH PUBLICATIONS

Morgan Vigil-Hayes, Md Nazmul Hossain, Alexander Elliott, Elizabeth Belding, and Ellen Zegura. "LoRaX: Repurposing LoRa as a Low Data Rate Messaging System to Extend Internet Boundaries." ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS). June 2022.

PROJECTS

Reaper Farm
Using a Raspberry Pi and socket programming, designed and implemented a fully autonomous growing system for Carolina Reaper plants. Data visualizations, plant status, and controls accessible anywhere through a self-hosted site. This project has produced over 200 peppers and counting!

Analysis of Crime and Its Influencing Agents
Leveraged Apache Hadoop and Hive to perform analysis of big data in the Hadoop Distributed File System searching for trends and correlations between crime data and weather patterns.

TECHNICAL SKILLS

Most Experience	C, Python, Java, Arduino, ESP32, Raspberry Pi, LoRa, IoT
Some Experience	C++, JS, HTML5, Verilog, SQL, P4, Hadoop, Hive