

Thomas Lang

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

B.S. in Computer Science, GPA: 3.9/4.0

Aug 2018 – Dec 2021

M.S. in Computer Science (Machine Learning), GPA: 4.0/4.0

Jan 2022 – Dec 2022

Classes: Data Structures & Algorithms, Objects & Design, Systems & Networks, Machine Learning, Info Security

EXPERIENCE

Capital One

McLean, VA

Software Engineering Intern

Jun 2021 – Aug 2021

- Developed a cloud security service that alerts teams when their applications have outdated security settings.
- Used Python, AWS Lambda and S3 to detect updates, determine changes and upgrade risks, and email alerts.
- Improved company cybersecurity by enforcing security standards on millions of cloud resources.

NCR Corporation

Atlanta, GA

Software Engineering Intern

Jun 2020 – Jan 2021

- Built a framework to test cloud deployments against infrastructure failures to reduce outages.
- Used Python to create cloud failures (like network loss) and monitor response times during recovery.
- Deployed the application to GCP using Kubernetes and Docker, and built a CI/CD pipeline using Harness.
- Reduced the likelihood of downtime events by running tests on live applications and presenting results to teams.

Georgia Tech Research Institute

Atlanta, GA

Software Engineering Intern

Jan 2020 – May 2020

- Developed a text document antivirus feature that uses statistical analysis methods to classify files as malware.
- Used Python, Django, MongoDB and Elasticsearch to create web-pages, API endpoints and unit tests.
- Improved file analysis services provided to customers by detecting social engineering attacks hidden in files.

Georgia Tech Research Institute

Atlanta, GA

Research Assistant

May 2019 – Jan 2021

- Developed algorithms that use sensor data collected from an airplane to analyze ocean water and terrain.
- First Author, “Simulation and optimization-based method of environmental parameter distribution from airborne bathymetric LIDAR data” SPIE Defense + Commercial Sensing, Orlando Florida, United States, 2021

NASA Glenn Research Center

Cleveland, OH

Research Assistant

May 2018 – Jun 2018

- Implemented a machine learning algorithm in a micro-controller to test functionality in low memory environments.

INVOLVEMENT

HackGT, Tech Team Member

- Organized and built software for the largest Hackathon in the southern United States
- Built websites for virtual hackathons during Covid-19 using Typescript, React, Node and MongoDB.

RotorJackets, Secretary

- Organized events, recruited new members and helped found a club for flying FPV drones.

Georgia Tech Automotive Research Lab, Software Team Lead

- Led ten students in implementing self-driving vehicle algorithms using Python, C++ and ROS.

HONORS & AWARDS

Eagle Scout: Achieved the rank of Eagle Scout through the Boy Scouts of America.

Hyland Hackathon (1st Place): Built an Android app that encourages exercise through a videogame.

Capital One Hackathon (2nd Place): Created a webapp that forecasts Lyft ride-sharing price surges.

SKILLS

Languages: Python, TypeScript, JavaScript, Java, SQL, C++, C

Software: Git, Node, Express, Flask, React, Vue, Django, MongoDB, Elasticsearch, Tableau, Spark, D3, Docker, Kubernetes, GCP, AWS Certified Cloud Practitioner