

NIMA SHOGHI | 404-862-0633 | nimashoghi@gmail.com | <https://nima.sh> | <https://github.com/nimashoghi>

EDUCATION

Georgia Institute of Technology: Bachelor of Science in Computer Science 05.2015 – 12.2019
Threads: Devices, Intelligence

PROFESSIONAL EXPERIENCE

High Performance Architecture Lab at Georgia Tech: Student Assistant 05.2019 – current
Started as an unpaid summer position but was hired for a paid fall semester position.
Researched visual SLAM techniques with mono, stereo, and RGB-D camera setups.
Worked on running stereo camera SLAM in real-time on the Raspberry Pi. Used C++ with libraries such as Eigen, OpenCV, and Pangolin. Used Docker for deployment onto the Pi.

Ciena Corporation: Software Engineering Intern 05.2017 – 05.2018
Started as a summer internship but was extended to a yearlong internship.
Developed software to interface with network devices and extract normalized data in order to provide an abstraction layer for device orchestration. Worked with Cisco Meraki and researched the communication layer of Meraki devices to integrate with the orchestration platform. Worked in the DevOps team to maintain the CI/CD pipeline.

SysGee Incorporated: Full Stack Web Development Intern 05.2016 – 01.2017
Outlined, developed, and tested web applications. Performed full stack development: PHP and MySQL on the backend and HTML, CSS, and JavaScript (jQuery) on the frontend.

PROJECTS

Center for Hard to Recycle Materials (CHaRM) Mobile Application 09.2018 – 04.2019
Developed a cross platform mobile app that allows visitors of CHaRM to log submissions electronically. Powered by React Native, Apollo Client, ASP.NET Core, and MSSQL.

Ringo: Optimal Ring Peer-to-peer Communication Protocol 01.2018 – 05.2018
Designed and implemented a peer-to-peer communication protocol that dynamically forms an optimal ring network and performs reliable data transfers over that network.

TECHNICAL PAPERS

SLAM Performance on Embedded Robots (Accepted into the 2019 ACM Student Research Competition) 07.2019
Measured and optimized the performance of running stereo camera SLAM on the Raspberry Pi. Concludes that our optimizations can speed up the algorithm's runtime by about 5 times with minor impact on accuracy, allowing us to run accurately in real-time.

SKILLS

- **Artificial Intelligence and Machine Learning:** NumPy, Pandas, TensorFlow, PyTorch, Keras, Scikit-Learn
- **Containers, Microservices, and Distributed Computing:** Docker, Kubernetes, Microsoft Orleans
- **Database:** MySQL, MSSQL, PostgreSQL, MongoDB, Redis
- **Embedded Devices:** ARM, Raspberry Pi, Arduino, Mbed OS, Node-RED, MQTT
- **Full Stack Web Development:** React, Angular, GraphQL and Apollo Client, ASP.NET Core
- **Mobile Application Development:** React Native, Java
- **Programming Languages:** Python, TypeScript, F#, C, C++, C#, Java
- **Reverse Engineering and Malware Analysis:** Ghidra, IDA Pro, Cuckoo Sandbox, Yara, Capstone, Frida, WinDbg, x64dbg
- **Systems Programming:** Windows Device Drivers, Intel VT-x and VT-d, x86 and x86-64 assembly
- **Test-Driven Development and Behavior-Driven Development:** Cucumber, NUnit, Jest, Mocha, FsCheck
- **Miscellaneous:** Windows, Linux, Debugging with Visual Studio and GDB, Git, PowerShell, Bash
- **Languages:** English, Persian, Spanish