

# SHOPHINE SIVARAJA

Atlanta, GA • [+1\(706\)202-8305](tel:+17062028305) • [shophine@gmail.com](mailto:shophine@gmail.com) • [shophine.dev](http://shophine.dev) • [linkedin.com/in/shophine](https://linkedin.com/in/shophine) • [github.com/shophine](https://github.com/shophine)

## EDUCATION

UNIVERSITY OF GEORGIA, **Master of Science in Computer Science**

Coursework: Cyber Security, Algorithms, Computer Networks, Software Security Cyber Forensics, Cloud Computing

August 2019 – May 2021

GPA: 3.94 / 4.0

ANNA UNIVERSITY, COLLEGE OF ENGINEERING GUINDY, **Bachelor of Engineering in Computer Science**

Coursework: Data Structures, Algorithms, Machine Learning, Security, Networks, Operating System, Software Engineering

August 2015 – April 2019

GPA: 3.74 / 4.0

## TECHNICAL SKILLS

Programming Languages: JAVA, C, C++, SQL, NodeJS, PHP, Python, JavaScript, Ruby

Databases: MySQL, MongoDB, Postgres SQL, SQLite

Frameworks: Express, Spring, MVC, React, Jekyll

Mobile Development: Android, Flutter, Firebase, Ionic

## PROFESSIONAL EXPERIENCE

UNIVERSITY OF GEORGIA, COMPLEX CARBOHYDRATE RESEARCH CENTRE

Athens, GA

**Web Application Developer (Research Assistant)**

September 2020 – Present

- Developing and designing a user-friendly website in Jekyll, Ruby, and created layouts for every category of the webpages and helped in the deployment and hosting of the website.
- Worked on Python scripts to grab content for the website's publication page from external sources.
- Implementing a backend module and system integration module in Express framework and MySQL databases.

*Technologies Used: Jekyll, Ruby, Python, MySQL, Git*

UNIVERSITY OF GEORGIA, WARNELL SCHOOL OF FORESTRY AND NATURAL RESOURCES

Athens, GA

**Full Stack Developer (Graduate Assistant)**

February 2020 – June 2020

- Collaborated with the researchers to develop a statistical data model from various sensor data of river and designed an enhanced dashboard.
- Reduced the researcher's workload by 40% by improving the process of generating reports with a statistical data model.

*Technologies Used: NodeJS, MongoDB, HTML, CSS, JS, Git*

SOFTLOGIC INFOSYSTEMS PRIVATE LIMITED

Chennai, India

**Software Developer Intern**

April 2017 – May 2017

- Implemented the UI design for the coursework module for premium users in an eLearning system.
- Worked on the payment module and authenticated the user endpoints in Node.js for an eLearning system.
- Developed an android application for the eLearning system and integrated it with backend services by REST API.

*Technologies Used: Android, MySQL, NodeJS, REST, Git*

## PROJECT EXPERIENCE

**Estimating end-end performance of Google Cloud Serverless Function**

September 2020 – Present

- Working on static code analysis of serverless functions and using Monte Carlo statistical methods for probability distribution to get the performance of various APIs in a serverless function to provide performance factors in Service Level Agreements.

**Dynamic Memory Overflow Detection using Taint Analysis**

January 2020 – March 2020

- Detected the memory overflow attacks with 90% accuracy and tracked the program instruction and data propagation via library calls in PIN.

**TCP Traceroute Analysis**

October 2019 – December 2019

- Computed overall time for all packet hops from client-side using the TCP dump trace of traffic generated by the traceroute.

**HTTP Downloading with Range Requests**

August 2019 – September 2019

- Implemented a mechanism that requests an object in various range via HTTP calls, reconstructed it back to the original object, and verified the correctness using SHA256 checksum.

**Unobtrusive Authentication of smartphone users by context-aware behavioral biometrics**

January 2019 – April 2019

- Created an android application to build a multi-modal (Gait, Geospatial) behavioral biometrics and used location-based data modeling using Geofence to improve the accuracy of the system to 95%. Implemented Access Level Service Provider based on the outcome of the model.

**Harvest Crop Price Prediction System for Farmers**

January 2018 – March 2018

- Developed an android application and implemented a sowing date prediction model by Linear Regression approach in Microsoft Azure.

**Community Healthcare Provider**

September 2018 – October 2018

- Developed a priority-based serving system for healthcare providers and users in native android, SQLite and RESTful API.

## CERTIFICATION

- AWS Fundamentals: Going Cloud-Native**, Coursera
- Node.js: A complete developer**, Udemy

## LEADERSHIP

**Workshop Organizer**, CEG Tech Forum, Anna University

September 2017 – February 2018

- A student-run organization that conducts an international techno-management fest with UNESCO patronage conducted by Anna University.