

SHOPHINE SIVARAJA

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EDUCATION

UNIVERSITY OF GEORGIA, **Master of Science in Computer Science** August 2019 – May 2021
Coursework: Cyber Security, Algorithms, Computer Networks, Software Security Cyber Forensics, Cloud Computing GPA: 3.94 / 4.0

ANNA UNIVERSITY, COLLEGE OF ENGINEERING GUINDY, **Bachelor of Engineering in Computer Science** August 2015 – April 2019
Coursework: Data Structures, Algorithms, Machine Learning, Security, Networks, Operating System, Software Engineering 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 categories of the webpages and helped in deployment and hosting of the website.
- Worked on Python scripts to grab content for the website's publication page from the 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 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 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 factor 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, Geo-spatial) behavioral biometrics and used location-based data modelling 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 international techno-management fest with UNESCO patronage conducted by Anna University.