Abieshek Subramaniam

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Education

Georgia Institute of Technology - College of Computing (Atlanta, Georgia) **June 2018- May 2022**
Bachelors in Computer Science (High Honors): Object-Oriented Programming, Data Structures and Algorithms, C Programming and Computer Intricacies, Agile and Iterative Development, UI Design, Information Visualization in JS, Applied Combinatorics, Discrete Mathematics, Linear Algebra, Computer Graphics, Design of Online Communities, Computer Animations

Skills

Languages	Java, TypeScript, JavaScript, HTML, CSS, Python, C++, C, Verilog, System Verilog
Miscellaneous	Angular, Spring Framework, JDBC, JPA, REST API, Maven, Kanban Board, DevOps, AWS, Git, JUnit, CI/CD (AWS & Github Workflow), Vivado, MS Office, CAD Software (Autodesk & Solidworks), Firebase

Experience

Full Stack Software Engineer - Cognizant (Atlanta, GA) **June 2022 - Current**
- Full Stack Software Development using Spring and Java for domain class and service layer implementation, JPA, JDBC, and Hibernate ORM to connect to SQL database, REST Controller and REST API development to interface with frontend and Angular application development to create user facing implementation connected to backend.
- Designed and developed a full-stack data file generation program to create database files based on a specification input file and raw data inputs with Java, Spring Boot, REST API and Angular Front-end that saved many hours of manual data translation and modifications.
- Innovate for Impact Challenge: Led a team of five new developers to design and develop a full stack enterprise application using Agile Development practices (Kanban Board) to connect local farmers to the average consumer to provide a healthier alternative for produce. Application used Java, Spring Boot, Angular, Bootstrap, REST APIs, JPA, and Microservice architecture and won top two within the company.

VIP Project Lead for Embedded Systems Research - Georgia Tech (Atlanta, GA) **August 2020 - December 2021**
- Research and development of smart city infrastructure and a secure voting platform (two separate projects) through utilization of configurable hardware (FPGA- PYNQ) as a computational platform (developed device drivers and wrappers to manipulate peripherals).
- Served as team lead for the project and helped organize and integrate the work from the different team members and sub-teams.
- Developed and modified PYNQ overlays using Vivado and developed scripts to automate this process.
- Synthesized and implemented an AES encryption and decryption core to be used for general information encryption in the voting system.
- Designed, developed and synthesized GPS module drivers for the PYNQ board using Python and C.

Customer Service Employee - Dunkin Donuts (Bear, DE) **September 2017 - December 2017**

Projects

Movie Data Visualization Using D3 JS Library **November 2021 - December 2021**
- Designed an interactive data visualization using JavaScript (D3 library), CSS, and HTML.
- Visualization provided scatter plots based on hundreds of movie data points with modifiable axes, movie year filters, and hover and click interactions for more detailed information about data presented in another plot.

Smash Style GBA Video Game Using C to Manipulate GBA Hardware **January 2020 - May 2020**
- Smash style game in C with simple animations, displaying images in multiple formats, double buffering for smooth animations, reading buttons, using indexed color, tiles, and sprites, using dynamic memory access to speed up animations, starting, stopping, and looping sounds and game logic.

Space Trader Application **January 2020 - May 2020**
- Worked in a team of four to create a JavaFX game application with various features and functionalities that were developed with proper agile development practices. Verified integrity of the program with JUnit testing.

Activities

Home Depot Hackathon **January 2020**
- Worked on developing a program to take data about product distribution and try to maximize revenue as optimally as possible while meeting product demands (Java).

Volunteered at Local Hospital and School events **August 2013 - June 2017**
- 500+ hours of volunteering and community service.