VARUN JAYAKUMAR

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EDUCATION

Northeastern University   Boston, MA
Master of Science in Software Engineering Systems   Expected May 2024
- Relevant Coursework: Web Design and User Experience, Concepts of Object-Oriented Design (JAVA)

Vellore Institute of Technology, India   Vellore, India
B.Tech in Electronics and Communication Engineering   May 2022
- Relevant Coursework: Data Structures and algorithms, Problem Solving and Programming, IOT fundamentals, JAVA, IOT domain Analyst, Computer Organization and Architecture, Mobile Application Development

TECHNICAL SKILLS

- Programming Languages: JAVA, JavaScript, Python, C, C++
- Web Technologies: HTML, CSS, SASS, ReactJS, NextJS, NodeJS, Express, Google Firebase, MongoDB, MySQL, Postman
- Cloud: AWS - S3, EC2, CloudFront
- Databases: MongoDB, Google Fire store
- Operating systems: Windows OS, Mac OS, Linux
- Development skills: Problem-solving, Test-driven development

WORK EXPERIENCE

WAVEUS NETWORK   Bengaluru, India
Web Developer   April 2021 - July 2021
- Designed and developed front-end in multiple client projects using HTML, PHP based Yii2 framework decreasing project delivery time by ~20 percent
- Leveraged Postman for Testing backend API's and collaborated with backend team by providing feedback to define API specifications, improving performance of web application by 10%
- Planned and created MySQL database schemas with meaningful relations for client projects ensuring fast query performance

ACADEMIC PROJECTS

MEALTRAIN - Full Stack web Application (NextJS, Redux, NodeJS, MongoDB, Amazon S3, Tailwind CSS)   December 2022
- Built client application with NextJS. Implemented features to view menu of restaurants, order food through cash on delivery or payment gateway and track order status. Utilized server-side rendering to improve SEO by 20%.
- Implemented second client application for restaurants to manage orders, create update and delete menu items. Leveraged amazon S3 bucket to store images therefore, improving performance by 10%.
- Developed backend RESTful API with NodeJS implementing JWT token for authentication, authorization. Thus, making API secure.

EMPLOYEE RECORDS MANAGEMENT (ReactJS, NodeJS, GraphQL, Amazon S3, EC2, MongoDB)   September 2022
- Built Employee Management web application for performing CRUD operations on employee records, utilized services provided by AWS to deploy application
- Integrated EC2 instance with Amazon S3, MongoDB and implemented GraphQL for highly scalable, low latency and reliable storage solution and deployed the web application on cloud decreasing cost by 40%

BLOCKCHAIN INTEGRATED CARGO-SURVEILLANCE SYSTEM (NodeJS, Express, Firestore, Ethereum)   May 2022
- Integrated IPFS (Interplanetary File System) with web application by leveraging smart contracts on Ethereum Network and custom APIs to make data storage possible on blockchain thus increasing data security
- Led two-member team to build an end-to-end cargo-monitoring web application to securely monitor shipment's environment leveraging blockchain (Ethereum, IPFS) and web technologies (NodeJS, Express, Bootstrap 5.0, Google Firebase)
- Modelled and created RESTful APIs to store and retrieve data from Firestore DB and blockchain, utilized blockchain as secondary storage system achieving secure and reliable application architecture

SMART WASTE TRACKER AND EFFICIENT MOBILIZATION (Kotlin, Google Firebase, C, NodeMCU)   January 2022
- Constructed a complete solution to track and monitor garbage pail using android application (Kotlin) and Internet of Things (IoT)
- Generated POST and GET request to store and fetch data from Firebase DB, devised an efficient algorithm to route nearest garbage collection service to filled garbage pail bringing down overall cost of operation by 20 percent

AWARDS AND CERTIFICATIONS

- AWS certified cloud practitioner (expires August 2024)
- "Gas Leakage Detection System" Varun Bharathi J, Harshit Sharma, Gowtham V, Dr. Debashish Dash, IJCRT, 2020.