VARUN BHARATHI JAYAKUMAR

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EDUCATIONS

Northeastern University   Boston, MA
Master of Science in Software Engineering Systems; GPA: 4.0   Expected May 2024
Relevant Coursework: Web Design and User Experience, Adv. Computing Infrastructure, Program structures and Algorithms, Concepts of Object-Oriented Design (JAVA)

Vellore Institute of Technology, India   Vellore, India
Bachelor of technology in Electronics and Communication Engineering; GPA: 3.65   Apr 2018 - May 2022
Relevant Coursework: Data Structures and algorithms, Problem Solving and Programming, Java, IOT domain Analyst, Computer Organization and Architecture, Mobile Application Development, Object Oriented Programming, Operating Systems

TECHNICAL SKILLS

Programming Languages: Java, C++, JavaScript (ES6) , Python, C
Web Technologies: React, Redux, HTML DOM, CSS, SASS, Next.js, Node.js, Express.js, GraphQL, TailwindCSS, Bootstrap 5.0
Cloud: AWS - S3, EC2, CloudFront, Elastic Beanstalk, CodePipeline, CodeBuild, CodeDeploy, CloudFormation, Docker, EFS, Linux
Databases: MySQL (SQL), MongoDB (NoSQL), Google Firestore (NoSQL)
Certifications: AWS certified cloud practitioner (expires August 2024)
Publications: "Gas Leakage Detection System" Varun Bharathi J, Harshit Sharma, Gowtham V, Dr. Debashish Dash, IJCRT, 2020

WORK EXPERIENCE

WAVEUS NETWORK   Bengaluru, India
Web Developer   Apr 2021 - Jul 2021

- Designed and developed front-end in multiple client projects using PHP based Yii2 framework improving usability and decreasing UI (user interface) feature delivery time by ~20 percent
- Implemented lazy loading, static assets caching and optimized HTTP requests to improve webpage performance by 23%
- Integrated website performance monitoring tools (Google PageSpeed Insights, Lighthouse) to enable webpage performance logging

ACADEMIC PROJECTS

Northeastern University
MEALTRAIN - Full Stack web App. (NextJS, Redux, NodeJS, MongoDB, Amazon S3, Tailwind CSS) Website | GitHub   Dec 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 search engine optimization 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 REST API with NodeJS implementing JWT token for authentication. Thus, making API secure

Northeastern University
PROJECT ORGANIZER (ReactJS, GraphQL, CodePipeline, CodeBuild, CodeDeploy, CloudFront, EC2) Website | GitHub   Sep 2022

- Developed project organizer web application and GraphQL API to performing CRUD operations on project and client information records providing a central location for project information and activities
- Built CI/CD pipeline for frontend and backend with CodePipeline, CodeBuild, CodeDeploy. Frontend React app deployed in S3 served by CloudFront and backend GraphQL API deployed in EC2 instance

Vellore Institute of Technology
BLOCKCHAIN INTEGRATED CARGO-SURVEILLANCE APP. (ExpressJS ,Firestore, Ethereum) Website | GitHub   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

Vellore Institute of Technology
SMART WASTE TRACKER AND EFFICIENT MOBILIZATION (Kotlin, Google Firebase, C, NodeMCU) Project Demo Jan 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