Thirunaavukkarasu Murugesan

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WORK EXPERIENCE

Software Engineer   Aug 2023 – Present
GCOM Information Technology Inc - Turing
- Working as a Python developer at a front runner AI company, solving highly challenging problems in the preparation of training datasets for the Large Language Model, and also contributing in an internal tool front end development.
- Developed of a browser extension to automate dataset checks, significantly decreasing manual workload. Employing prompt engineering along with reinforcement learning to generate efficient dataset for tuning the Large Language Model.

Software Development Engineer   Feb 2017 – Jul 2021
HTC Global Services
Client: State Farm
- Worked in Tax applications with large DB2 tables to generate reports by processing roughly 50 million records and send outbound files, working on technologies like Java Spring Boot, JPA, building micro-services and RabbitMQ.
- Worked on transforming data intense application from Mainframe to AWS to migrate large dataset and DB2 tables, changed the job flow of the database operations, impacting up to 30+ teams at enterprise level
- Designed and implemented a dashboard utilizing Node.js and Express.js, with Postgres as the backend database. Integrated Chart.js and React.js for generating real-time graphs to monitor sensor data, working on event driven architecture, resulting in a 72% reduction in manual workload and improved efficiency

SKILLS

Languages/Frameworks/Technologies: Java Spring Boot, Python, JavaScript, TypeScript, JPA, Node.js, Express.js, Material UI, Bootstrap, Kafka, Flask, Angular, React, Redux, RESTful APIs, GraphQL

CI/CD/Tools/DB/Cloud: PostgreSQL, MySQL, MongoDB, Redis, ElasticSearch, Git, GitHub, Gitlab, Jenkins, Jest, Selenium, AWS (S3, EC2, ELB, SQS, EKS, DynamoDB, Lambda), Docker, Kubernetes, Figma

PROJECTS

HashMap – a DSA preparation platform – ReactJS, JSX, CSS, Material UI, JSON, GitHub Pages, Problem Solving
- Consolidated all the learning materials and problems' solution under a single website. Solved over 90+ important Leetcode problems and explained them through videos of over 75+ hours of watch time on YouTube
- Deployed the web application using GitHub pages. The website allows users to filter problems based on the techniques or topics. Added simple search functionality based on the problem title and problem description

Live Cricket Hub – Web App for cricket updates – NodeJS, Express.js, React JS, MongoDB, Material UI, WebSocket, Elastic Search, AWS EC2 and Firebase
- Built using React.js for the front-end, MongoDB as the NoSQL database, and Node.js + Express.js for the backend server. Incorporated Redis for caching user data, Firebase for dynamic authentication. Hosted backend in AWS EC2.
- Implemented a real-time chat room using Socket.io for user interaction during live matches. Utilized Elasticsearch, a fast text-based search engine, to retrieve relevant user data from the database

Questionnaire – Q&A based discussion forum – Node.js, Express.js, Express-Handlebars, MongoDB
- Designed and developed a web application for a question-and-answer based discussion forum using Node.js + Express for the backend, MongoDB for the database, HTML5 along with Bootstrap for the frontend design
- Added features for adding communities that contain questions, voting systems for providing upvotes and downvotes to the questions and answers and performing content moderation to remove spam & unhealthy content from the forum

Skills Match – Application that list relevant job based on applicant's skill – Python, Selenium, NLTK and BERT
- Scraped the job data - Company, Location, Job description from LinkedIn with selenium for a given job position keyword
- Used PDF Miner and NLTK python package to scrape the skillset from the resume and Job descriptions, applied text matching algorithms like Cosine similarity and BERT to find appropriate jobs for a given profile/resume

Employee Management System – Java, TypeScript, Spring Boot, JPA, MySQL, Bootstrap, HTML, CSS, Angular JS
- Developed a simple employee management system enabling CRUD operations on employees from a dashboard
- Built using Java, Spring Boot, Spring Data JPA, MySQL, Bootstrap, HTML, CSS, and Angular. Implemented a MySQL database and utilized custom database configuration

EDUCATION

Stevens Institute of Technology | New Jersey, United States   May 2023
Master of Science in Computer Science
Anna University – MAM College of Engineering | Chennai, India   May 2016
Bachelor of Engineering in Computer Science and Engineering

CERTIFICATIONS

AWS Cloud Practitioner - Link

Post Graduate Program in Machine Learning - Link