GANESH PATIL

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Portfolio: ganesh021.github.io
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EDUCATION

Northeastern University, Boston
Expected May 2024
Master of Science in Information Systems *(GPA: 3.7/4)*
Relevant Coursework: Cloud Computing, Data Structures & Algorithms, Object Oriented Programming, Web Design & UI/UX

EXPERIENCE

Software Engineer
Dec 2020 - Jun 2022
HCL Technologies
Pune, India

- Realized a 25% reduction in monthly cloud expenses by transitioning to cost optimal solutions in AWS, leveraging JVM thread tuning, concurrent programming, autoscaling, which collectively increased utilization from 30% to over 80%
- Collaborated with cross-functional teams for developing over 50+ RESTful APIs and documented specifications using Swagger
- Spearheaded the design and implementation of a scalable microservices-based system for a PLM service using Spring Boot
- Co-developed a back-end system initially capable of handling 300 requests per second and, through horizontal scaling with a Nginx load balancer, optimized it to support 900 rps, marking a remarkable 200% performance increase
- Architected and deployed a Java Spring Boot-based microservices blueprint by encapsulating configurations into reusable Docker components. This empowered other teams to effortlessly spin off services, significantly reducing development timelines
- Accelerated production database updates by a factor of three through the development of Selenium automation scripts
- Optimized memory usage and reduced garbage collection pauses, resulting in a 25% reduction in server resource consumption.
- Enhanced the scalability of the database by mapping the database model into persistence objects using Hibernate Annotations
- Delivered multiple cumulative Patch Releases, and Hot Fixes in an Agile and Kanban software development methodology
- Stack: Java, J2EE, Linux OS, Spring Boot, JVM, Tomcat, SOA, Docker, Kubernetes, REST, Redis, AWS - EC2, S3, VPC, Kafka, CI/CD

Software Engineer Intern
Oct 2020 - Dec 2020
HCL Technologies
Pune, India

- Improved performance of the legacy code which handles millions of records by more than 5% using multi-threading in Java
- Revamped software efficiency by synchronizing jobs across Kubernetes pods, accelerating backend speed by 10%
- Delivered POC for a schema-driven Linux daemon to oversee platform-independent software for configuration management

Software Developer Intern
Jan 2020 - Jun 2020
Alsis Tech
Pune, India

- Achieved ~6kb reduction in Webpack bundle size by using React hooks, Context API and code splitting across multiple modules
- Successfully deployed the Spring Boot application with Tomcat as the web server and WebLogic as the application server
- Developed ETL (Extract, Transform, Load) pipelines using Python to process Big data, and retrieval of data in JSON format
- Implemented 100+ unit and integration tests with JUnit, increasing code coverage from 60% to 95%
- Stack: Spring Boot, Junit, Java, JavaScript, Node.js, Express, React, Redux, Python, MySQL, Webpack, Git, Postman

TECHNICAL SKILLS

Programming Languages: Java, JavaScript, Python, SQL, C/C++, Bash
Server-side Technologies: J2EE, Spring Boot, Spring MVC, Hibernate, Linux/Unix, Node.js, Apache Kafka, Tomcat, NGINX
Client-side Technologies: React, Redux, ES6, React Native, Webpack, Gulp, Babel, Eslint, HTML, CSS
Cloud & DevOps: AWS (EC2, S3, Lambda, VPC, RDS), Docker, Kubernetes, Terraform, Packer, CI/CD, Git
Database & Frameworks: MySQL, PostgreSQL, MongoDB, Oracle, Redis, Elasticsearch

PROJECTS

IaC Provisioner | Visual Studio Code Extension | *Link to Extension* | *Terraform, AWS CloudFormation, Packer, Pulumi*
Empowering cloud infrastructure development across AWS, Azure and GCP, streamlining resource provisioning in cloud projects
Distributed Blog Application | *Link* | *Java, Spring Boot, AWS, Docker, Kubernetes, Terraform, Kafka, MySQL, Lambda*
Utilized Kafka topics, producers, and consumers for communicating between decoupled microservices; Used Terraform for provisioning infrastructure to run auto-scalable Kubernetes cluster; Lambda for individual microservices in serverless architecture
Application Tracking Portal | *App Link* | *Node.js, React.js, Express.js, Redux, Cross-browser compatibility, MongoDB, CI/CD*
Created a full-stack single page application, streamlining job application tracking. Incorporated a secure authentication system with JWT Tokens. Utilized Nginx to perform static serving and reverse proxying. Implemented CI/CD with GitHub Actions
GPA Estimator | *App Link* | *Python, Django, JavaScript, Ajax, HTML5, CSS3, Bootstrap*
App for Computer Science Dept. students to estimate their grades based on relative course difficulty and plan academic coursework

LEADERSHIP & PUBLICATIONS

- Patent - "Implementation of dynamic road Infrastructure as per run time requirement". *No: 202021030039*
- Medium Blogs: *https://medium.com/@ganesh02103*