GANESH PATIL

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EDUCATION

Northeastern University, Boston, MA   April 2024
Master of Science in Computer Software Engineering *(GPA: 3.7/4)*
Relevant Coursework: Cloud Computing, Data Structures & Algorithms, Object Oriented Programming, Web Design & UI/UX, Big Data

EXPERIENCE

Software Engineer, HCL Tech

Google, San Francisco, CA   May 2021 - Jun 2022
- Collaborated with cross-functional teams for developing over 50+ RESTful APIs and documented specifications with Swagger
- Elevated Java Spring Boot microservices availability to 99.99% through robust inter-service communication resiliency pattern
- Engineered cache management APIs using Nods.js, Redis, enhancing application read performance and minimizing network load
- Crafted 100+ unit & integration tests with Junit, increasing code coverage from 60% to 95% using Test Driven Development (TDD)
- Architected a Docker and Kubernetes-based orchestration strategy, achieving a 40% reduction in deployment workflows
- Stack: Linux OS, Java, Node.js, Spring Boot, Express, JVM, Docker, Kubernetes, OpenAPI, Redis, CI/CD, REST, SOA, Agile, Postman

Siemens, Dallas, TX   Oct 2020 - May 2021
- Played a pivotal role in development of React modules within Siemens Web Framework SDK across multiple patch releases
- Optimized React web components leveraging React Hooks, Redux and Context API streamlining scalability of stateful logic
- Achieved ~15kb reduction in webpack bundle size by code splitting, lazy loading and tree shaking, enhancing app responsiveness
- Scaled AWS infrastructure horizontally to support over 10,000 clients, with load balancer, auto scaling and AWS EC2, AMI, S3, RDS
- Leveraged Terraform to automate infrastructure deployment on AWS across production and QA, reducing manual efforts by 80%
- Stack: React, Javascript, AWS - EC2, S3, AMI, RDS, VPC, Route53, IAM, React Native, CI/CD, SOA, REST, Redux, MySQL, Jest

Software Developer, Kaalpanik Technologies, Pune, IN   Jan 2019 - Sep 2020
- Realized a 25% cut in AWS cloud costs by migrating to serverless AWS Lambda, EC2 Reserved Instances, S3 Intelligent-Tiering
- Streamlined CI/CD pipeline with Jenkins by automating builds, tests, and deployment, leading to 30% decrease in lead time
- Developed ETL (Extract, Transform, Load) pipelines using Python to process Big data, and retrieval of mass data in JSON format
- Enhanced legacy code throughput by 10%, enabling concurrent processing of millions of records by multi-threading in Java

TECHNICAL SKILLS

Programming Languages: JavaScript, Java, Python, C/C++, SQL, Bash
Back-end Technologies: Node.js, Spring Boot, Express, Spring MVC, Hibernate, Django, Linux/Unix, Apache Kafka
Front-end Technologies: React, React Native, Redux, ES6, Angular, Webpack, Ajax, Gulp, Babel, Eslint, HTML, CSS
Cloud & DevOps: AWS - EC2, S3, SQS, Lambda, VPC, RDS, Docker, Kubernetes, Terraform, Packer, CI/CD, Git
Database & Frameworks: MySQL, PostgreSQL, MongoDB, Oracle, Redis, Elasticsearch, GraphQL

PROJECTS

IaC Provisioner | Visual Studio Code Extension | *Link* | *Terraform, AWS CloudFormation, HashiCorp Packer, Pulumi*
Empowering cloud infrastructure development across AWS, Microsoft Azure and GCP, streamlining resource provisioning

Cloud Native Distributed Web Application | *Link* | *Java, Spring Boot, AWS, Docker, Kubernetes, MySQL, GitHub Actions*
Developed a production-ready infrastructure, orchestrating an auto-scalable Kubernetes cluster, RDS, DynamoDB instances, and
CloudWatch alarms across multiple AZs, achieving 99.9% uptime. Crafted shell scripts to automate CI/CD pipeline within GitHub
Actions and utilized Packer to containerize applications in AWS AMI resulting in auto startup of app when EC2 instances are launched

Application Tracking Portal | *Link* | *Node.js, React.js, Express.js, Redux, MongoDB, Cross-browser compatibility*
A single page application, streamlining job tracking with authentication via JWT Tokens, managed user sessions, visual graphs & charts

GPA Estimator | *Link* | *Python, Machine Learning, Regression Analysis, Predictive Analytics, Data Analysis, Django*
Engineered a Machine Learning model to offer predictive insights for Computer Science Dept. students by employing regression
analysis and using historical academic data to forecast grades by analyzing patterns and trends within academic performance data

LEADERSHIP & PUBLICATIONS

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