

GANESH PATIL

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Portfolio: ganesh021.github.io
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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, Web Design & UI/UX, Data Structures & Algorithms, Object Oriented Programming, Big Data

EXPERIENCE

Software Engineer, HCL Tech

Google, San Francisco, CA

May 2021 - Jun 2022

- Reduced application load time by 50% through service worker caching, **reverse proxies**, and **server-side rendering** (SSR)
- Architected a unified codebase with **React** virtual DOM agility and **Angular** enterprise structure, enhancing application robustness
- Developed a custom **CSS** framework to achieve **responsive** design and cross-browser compatibility, boosting user engagement
- Achieved ~15kb reduction in **webpack** bundle size by code splitting, lazy loading and tree shaking, enhancing app responsiveness
- Crafted 100+ **unit & integration** tests with **Jest**, increasing code coverage from 60% to 95% using **Test Driven Development** (TDD)
- Stack**: JavaScript, TypeScript, Linux OS, Angular, React, DOM, Webpack, Node.js, CI/CD, REST, SOA, OpenAPI, Agile, SASS

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
- Leveraged **Terraform** to automate infrastructure deployment on **AWS** across production and QA, reducing manual efforts by 80%
- Scaled **AWS** infrastructure horizontally to support over 10,000 clients, with load balancer, auto scaling and AWS EC2, AMI, S3, RDS
- Architected a **Docker** and **Kubernetes**-based orchestration strategy, achieving a 40% reduction in deployment workflows
- Stack**: React, React Native, Redux, AWS - EC2, S3, AMI, RDS, VPC, Route53, IAM, Docker, Kubernetes, MySQL, CDN

Software Developer, Kaalpanik Technologies, Pune, IN

Jan 2019 - Sep 2020

- Spearheaded the migration of legacy front-end codebase to **React**, boosting maintainability through reusable components
- Pioneered adoption of **GraphQL**, reducing network requests by 20% and significantly improving data retrieval efficiency and UX
- Collaborated with cross-functional teams for developing over 50+ **RESTful APIs** and **documented** specifications with Swagger
- Streamlined **CI/CD** pipeline with **Jenkins** by automating builds, tests, and deployment, leading to 30% decrease in lead time

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Java, Python, C/C++, SQL, Bash

Front-end Technologies: React, React Native, Redux, ES6, Angular, Webpack, Ajax, Gulp, Babel, ESLint, HTML, CSS, SASS

Back-end Technologies: Node.js, Spring Boot, Express, Spring MVC, Linux/Unix, Apache Kafka

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](#) | *AWS, Java, Spring Boot, 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](#) | *React.js, Redux, MongoDB, Node.js, Express.js, HTML-5, CSS-3, Bootstrap*

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>