Swapnil Biradar

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EDUCATION

Northeastern University, Boston, MA — *Expected May 2024*
Master of Science in Software Engineering Systems — GPA: 3.8
Relevant Coursework: Data Structure & Algorithms, Network Structures & Cloud Computing, Web Design, Database Design

MIT College of Engineering, Pune, MH, India — *Jun 2019*
Bachelor of Engineering in Electronics and Telecommunications

TECHNICAL SKILLS

Programming: Javascript, Python, C, C++, C#, Java, Typescript, HTML, CSS, XML, Shell Scripting
Technologies: Node.js, Express, React, Redux, RESTful APIs, Angular, Microservices, Unit Test, ASP.Net, .Net Core, TCP/IP
Databases: Microsoft SQL server, MongoDB (NoSQL), MySQL, PostgreSQL
Cloud(AWS): Lambda, Step-Function, Redshift, DynamoDB, CDK, CloudFormation, Terraform, Packer, EC2, RDS, S3
Tools: Git, Github, Docker, Kubernetes, Linux, Bitbucket, Swagger, CI/CD, VS Code, Eclipse, Jira, Tomcat

PROFESSIONAL EXPERIENCE

Software Developer, Tata Consultancy Services, Pune — *Feb 2022 – Aug 2022*

- Built scalable and robust RESTful APIs using Node.js and Asp.net to serve data to front-end, capable of handling over 100,000 concurrent user requests, resulting in a 60% improvement in response times and an 80% increase in throughput.
- Improved application performance by implementing API caching, database connection pooling, and containerization techniques, resulting in a 40% reduction in response times and a 60% increase in scalability
- Built & maintained automated CI/CD pipelines using Jenkins, worked closely for deployments from Dev to Prod region decreasing overall downtime of applications by 98% & reducing time and resources required for manual deployments
- Deployed applications on AWS using services such as Lambda, DynamoDB, EC2, CloudWatch increasing efficiency by 37%

Software Developer, Infosys Limited, Pune — *Sep 2019 – Feb 2022*

- Developed a secure, high performance Node.js application using Express.js to automate client audit workflows, reducing manual workload by 70% and accelerating efficiency, through architectural considerations for performance optimization, error handling
- Crafted database schemas and optimized SQL queries for data extraction, resulting in 80% efficiency improvement. Modified tables, views, stored procedures & devised new procedures, Triggers as part of project requirements
- Developed a modular architecture using React's component-based structure, integrating advanced state management techniques like Redux and Context API, resulting in a 30% increase in code reusability and a 40% improvement in data flow
- Performed Unit, Integration, Black Box, Regression, Validation, System testing, Test Driven Development (TDD) from start to end of the project and xmaintained high-level code coverage by writing test case

ACADEMIC PROJECTS

Microservice architecture | *Docker, Kubernetes, Terraform, AWS* — *Mar 2023*

- Streamlined deployment processes by leveraging Docker to containerize the application, securely storing and distributing container images through Amazon ECR, and deploying it efficiently using Kubernetes manifests
- Ensured high availability by implementing AWS monitoring and autoscaling solutions using CloudWatch Alarms and Metrics
- Optimized the deployment process by orchestrating automated deployments through GitHub Actions and Workflows, effectively streamlining the entire deployment workflow

Inventory Management Application on AWS | *Lambda, EC2, RDS, S3, Terraform, Packer, EBS, AWS, Node.js* — *Mar 2023*

- Built an efficient Inventory Management Application with secure authentication streamlined inventory management capabilities, utilizing NodeJS, Express, and MySQL
- Leveraged Terraform and Packer to construct and configure VPC, subnets, route tables, internet gateway, S3, EC2 and RDS instances, implementing custom security groups for secure and compliant resource deployment
- Designed and implemented serverless AWS Lambda functions and Step Functions to enable scalability, improve performance by 30%, and automate application workflows, resulting in more efficient inventory management

Stock Portfolio Management | *Node.js, Express.js, React, JSX, MongoDB* — *Dec 2022*

- Conceptualized, designed, and developed a cutting-edge MERN stack web application with React.js front-end and Node/Express, MongoDB back-end APIs
- Implemented JWT for secure authentication, Material UI for a visually appealing user interface, and integrated external APIs (Trading View and Finnhub.io) for real-time market information