Makarand Madhavi

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Education

Master of Science in Software Engineering Systems
Northeastern University, Boston, Massachusetts   Expected May 2024

Bachelor of Engineering in Information Technology
University of Mumbai, India   June 2021

Skills

Programming: Java, Python, JavaScript, HTML5, CSS, SQL
Frameworks and Libraries: OpenCV, TensorFlow, Spring Boot, Kafka, Flask, Bootstrap, Node.js, React, Express.js, ELK, Helm
Other Technical Skills: Git, CI/CD, AWS, GCP, Kubernetes, Docker, Artifactory, RESTful APIs, JSON, Linux/Unix, MySQL, MongoDB

Professional Experience

Software Engineer [Java, Spring Boot, Micronaut, Docker, Kubernetes**]**   July 2021 – August 2022
IDFC First Bank, Mumbai, India

- Completed full software development lifecycle in an agile environment writing clean and documented code to build scalable distributed systems consisting of micro-services to handle 20+ millions of customer related data records
- Increased system efficiency by 30% by proposing data models and architectural solutions that took into consideration business requirements and access patterns
- Applied object-oriented programming, data structures and algorithms to write unit tested RESTful APIs and Kafka consumers in Java leveraging Micronaut framework delivering average API response time of 10ms
- Setup CI/CD pipelines and Grafana, Kibana dashboards leveraging git, GitHub, docker and Artifactory for deployment of containerized services on Kubernetes clusters via helm charts of two API platforms
- Designed integration testing framework leveraged by all engineers within the team reducing testing effort and code length for tests by 50% and delivering robust micro-services leading to being Awarded Arête Award for Delivery Excellence

Web Developer Intern [HTML, CSS, JavaScript, SQL, jQuery, AWS**]**   May 2020 – July 2020
Ramrao Adik Institute of Technology, Navi Mumbai, India

- Developed a customized student dashboard using HTML, CSS, JavaScript, and jQuery, which increased student logins by 40%, leveraging PHP and SQL backend APIs to manage and query a user base of 3000+ individuals
- Automated LAMP stack deployment on AWS with shell scripts, achieving sub-5 minute deployments

Projects

Cloud Native Webapp, Network Structures and Cloud Computing [AWS, GCP, IaC**]**   September 2023 – November 2023

- Built and deployed microservices on AWS, leveraging VPC, EC2, RDS, IAM, security groups, Load Balancers, SNS, Lambda functions, mail servers, and GCP buckets
- Championed DevOps practices by implementing CI/CD pipelines, Infrastructure as Code with Pulumi, and Git forking workflows with GitHub Actions to ensure secure and stable codebases and infrastructure
- Designed and implemented a cloud-native application with centralized logging, monitoring, and alerting with email integrations for comprehensive system observability

NU Chronicles, Web Design and UX Engineering [React, NodeJS, Express, MongoDB, SCSS**]**   September 2022 - November 2022

- Designed visually appealing and user-friendly web application using HTML5, CSS3, and bootstrap to assist new university students with off-campus housing, groceries, restaurants, attractions, and live events
- Performed full-stack development by Integrating React based front-end with back-end consisting of RESTful APIs, express and MongoDB database

Facial Emotion Recognition | Mumbai University Capstone Project [Neural Networks, OpenCV, Flask**]**   January 2020 – April 2021

- Collaborated with a research team of three for building a real time facial emotion classification system leveraging convolutional neural networks classifying seven different emotions and capturing of live video feed and visualizing emotion classification results in graphical format on time series plots in real time using python, OpenCV and Flask
- Co-Authored research paper on "Facial Emotion Classifier using Convolutional Neural Networks for Reaction Review" and published in "ITM web of conferences" https://doi.org/10.1051/itmconf/20224403055