Aditya Mehta

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SUMMARY

Software Engineer with a strong background in **object-oriented design**, **data algorithms**, and **distributed systems**. Proven track record in developing and deploying **scalable APIs** (reducing ETL times by 50%) and accelerating **CI/CD release cycles** by 40%. Experienced in **ML model integration**, **DevOps transformation**, and **infrastructure as code** (IaC). Currently pursuing a Master's in Computer Science, with hands-on knowledge of **Scrum** and Agile practices.

SKILLS

Programming & Scripting: Python, Java, C/C++, SQL, Bash, Object-oriented Programming
Cloud/DevOps: AWS (EC2, S3, RDS, Lambda, CloudFormation), Docker, Kubernetes, Jenkins, Git, Terraform, CI/CD pipelines
Software Design: Microservices, REST APIs, Load Balancing, Caching, Distributed Systems, Scalability
Databases: SQL (MySQL, PostgreSQL), NoSQL (MongoDB, DynamoDB), NewSQL (CockroachDB), Redis
Data Algorithms & Structures: Data Structures, Data Algorithms
Machine Learning & MLOps: TensorFlow, Scikit-learn, basic deep learning models, model deployment, data preprocessing
Testing & QA: Unit Testing (PyTest, JUnit), Integration Testing, TDD/BDD, Automated Builds
Security & Monitoring: OAuth 2.0/JWT, AWS IAM, Prometheus/Grafana, Logging/Alerting (CloudWatch, ELK)
Other Skills: Data Analysis, Process Optimization, BI/Reporting (Power BI, Tableau), Linux, Agile/Scrum

PROFESSIONAL EXPERIENCE

Software Engineering Lead   Feb 2023 – Jul 2023
Capgemini India (General Motors, US)   Bengaluru, IN

- Implemented a **containerized microservices architecture** using Docker & Kubernetes for zero-downtime deployments, boosting overall availability.
- Enhanced **CI/CD pipelines** (Jenkins, GitHub Actions), reducing deployment effort by 40% and release cycle times by 2x.
- Spearheaded a **DevOps transformation** with **Infrastructure as Code** (AWS CloudFormation, Terraform) for consistent provisioning.
- Elevated system reliability by 30% via **proactive monitoring** (CloudWatch), alerting, and automated incident response.
- Integrated **ML models** in production (TensorFlow) to handle real-time inferences, cutting processing latency by 25%.
- Led a cross-functional team of 10 in Agile/Scrum ceremonies, championing best practices in code reviews, TDD, and collaborative DevOps.
- Automated **backup and recovery** for mission-critical SQL/NoSQL databases, improving RPO/RTO metrics across environments.

Software Engineer   Jun 2020 – Feb 2023
Larsen & Toubro Infotech (Scania AB, Sweden)   Bengaluru, IN

- Built and optimized **data pipelines** for large-scale analytics using AWS Glue and Lambda, slashing ETL times by 50%.
- Developed **scalable Python APIs** (FastAPI/Flask) integrated with AWS RDS (PostgreSQL) and DynamoDB for high-traffic platforms.
- Implemented **Kubernetes (EKS)** orchestration, reducing operational overhead by 35% and ensuring seamless autoscaling.
- Deployed comprehensive **CI/CD workflows** (Jenkins, Git) to automate testing, container builds, and multi-environment releases.
- Improved **ML model inference** performance via TensorFlow Serving, increasing prediction throughput by 20%.
- Established real-time **observability** with CloudWatch and Grafana, shortening incident response and root-cause analysis.
- Migrated **on-premise PostgreSQL** to AWS Aurora, driving cost efficiency and fault tolerance for global data operations.

Software Developer Intern | May 2019 – Jul 2019
Caratlane India | Chennai, IN

- Created an automated **AWS EC2** instance management script, reducing cloud infrastructure costs by 20%.
- Developed Python-based **data validation** tools for SQL/NoSQL databases, improving analytics data quality.
- Configured **Docker containers** for local development, cutting build/test cycles by 30%.
- Designed a custom **ML project** analyzing customer purchase data for targeted marketing campaigns.
- Actively participated in **Agile sprints** and stand-ups, gaining hands-on exposure to Scrum principles.

EDUCATION

Master of Computer Science (GPA: 4.00/4.00) | Aug 2023 – May 2025
Arizona State University, Tempe, AZ

Bachelor of Technology, Computer Science (GPA: 7.78/10.00) | Aug 2016 – May 2020
University of Petroleum and Energy Studies, Dehradun, IN

PROJECTS

AWS-Driven ML Pipeline — *AWS, Python, TensorFlow, Docker* | Feb 2023 – May 2023

- Built an end-to-end **data pipeline** on AWS using S3 (data storage), Lambda (ETL), and SQS (asynchronous processing).
- Trained & deployed a **TensorFlow model** for real-time classification, achieving 92% accuracy on validation data.
- **Containerized** the entire pipeline with Docker, simplifying reproducible dev environments and reducing setup time.
- Leveraged **AWS Step Functions** for orchestration, boosting reliability and transparency of data workflows.

Kubernetes Microservices Application — *Python, FastAPI, K8s, PostgreSQL* | Sep 2022 – Dec 2022

- Developed multiple Python-based **microservices**, each managing discrete business logic with separate containers.
- Utilized **Kubernetes (Minikube/EKS)** for orchestration, ensuring auto-scaling and load balancing.
- Integrated PostgreSQL for relational data & Redis for caching, **boosting response times by 40%**.
- Adopted best **DevOps practices** with Helm charts, enabling repeatable and versioned deployments.

NoSQL Analytics Dashboard — *MongoDB, Express, React, Node.js* | Jan 2022 – Mar 2022

- Implemented a **React-based dashboard** visualizing data from MongoDB, providing near real-time analytics.
- Built **REST APIs** (Node.js/Express) to ingest, query, and aggregate large JSON datasets, reducing query times by 35%.
- Employed **Docker Compose** for local development, streamlining multi-service integration and testing.
- Deployed on **AWS Elastic Beanstalk**, enabling frictionless continuous integration & delivery.

EXTRACURRICULAR & LEADERSHIP

Co-founded and served as Vice President for an international engineering students association, expanding membership to 100+ in the first semester and partnering with local tech sponsors.

Organized technical workshops, guest lectures, and mentorship sessions to enhance career-focused learning, resulting in a 30% increase in event attendance.

Volunteered and worked as a student coordinator for new-student programs at ASU's ISSC, guiding 200+ peers through orientation, enrollment steps, and cross-cultural networking events.

Led a winning hackathon team, creating an AI-driven data visualization solution that outperformed 50+ competitors via real-time analytics and effective project management.