Adwait Kulkarni

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EDUCATION

B.Sc. in Computer Science, Minor in Data Science

Sep. 2020 – May 2025

University of British Columbia (GPA: 3.7/4.0)

Vancouver, BC

Developer in UBC Subsea Robotics and DSCI clubs. Selected for Google's invite-only Software Product Sprint.

WORK EXPERIENCE

Software Developer

Jun. 2025 - Present

Tata Consultancy Services (Aviation)

Toronto, ON

- Developed cloud-native apps with React.js, Node.js, and AWS in TCS's AI & Cloud unit, supporting 100K users.
- Engineered serverless REST APIs with AWS Lambda, API Gateway, DynamoDB, and S3 for flight reservations and updates, reducing latency by 30% and achieving a 99.9% request success rate as monitored via CloudWatch.
- Spearheaded virtual chatbot creation on Amazon Connect with Claude, achieving 90%+ intent accuracy for 100K+ user queries/month on the mobile app.
- Leveraged serverless workflows with Lambda, DynamoDB, and DAX cache for flight disruption notifications, automating CloudFormation deployments and cutting latency from 5 ms to 500 µs for 50K+ real-time events.
- Designed SQL validations on S3-backed DynamoDB data to identify attribute defects, automated fixes with Node.js + CDK, eliminating anomalies across 20+ services in 5 environments.
- Drove codebase migration from Serverless to AWS CDK for 15+ services, cutting deployment time by 20%.

Full-Stack Developer

Sep. 2022 - Sep. 2023

Royal Bank of Canada (RBC)

Toronto, ON

- Improved latency by 25% for 5+ apps by developing Java microservices and Spring APIs with Kafka pipelines.
- Cut config setup time from 10+ mins to 2 for 200 developers with a Spring Web tool across 3 environments.
- Enabled real-time monitoring for 50+ applications across 20+ production topics by implementing a Kafka-based metadata tracking solution that processed ~1M messages/day.
- Led migration of 50+ services across OpenShift and Cloud Foundry platforms, without prod downtime.

PROJECTS

ClusterVAN | Python, pandas, Scikit-Learn, Grog LLM, Plotly

Jan. 2025 – May 2025

- Built a business recommender for Vancouver by analyzing 300K businesses using unsupervised ML techniques.
- Deployed Groq LLM to provide recommendations by analyzing 300K data points over 6 years for 25 locations.
- Set up an interactive Plotly dashboard with 20+ clusters for detailed market analysis, used by 150 users.

TL;DReviews | React.js, Node.js, Lambda, SageMaker, RDS, S3, Docker

Jan. 2025 - May 2025

- Constructed an AWS pipeline analyzing 6,000+ reviews to provide 450+ students with course insights, deploying a PEGASUS text summarization model on SageMaker, and visualizing results with D3.js.
- Ensured security with Macie, VPC, IAM, Security Groups, and KMS, aligning with CISA and NIST standards.
- Streamlined deployment using automated CI/CD with GitHub Actions and packaged in ECR Docker images.

SKILLS

- Languages: Java, Python, JavaScript, TypeScript, Go, HTML/CSS, R
- Frameworks/Libraries: Spring Boot, React.js, Node.js, Express.js, D3.js, pandas, Scikit-Learn, Altair, JUnit
- Tools/Technologies: Apache Kafka, Git, Docker, AWS Services, OpenShift, Cloud Foundry
- **Databases:** MongoDB, MySQL, RDS