ADWAIT KULKARNI

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EDUCATION

University of British Columbia   Vancouver, BC
B.Sc. in Computer Science, Minor in Data Science | GPA: 3.8/4.0   *September 2020 – May 2025*

- Software dev in UBC Subsea Robotics and Data Science clubs. Selected for Google's invite-only Software Product Sprint.

WORK EXPERIENCE

Software Developer   June 2025 – Present
Tata Consultancy Services (TCS) - Aviation Client   *Toronto, ON*

- Built cloud-native apps for a leading Canadian airline, using React.js, Node.js, and AWS, within TCS's AI & Cloud Unit.
- Designed scalable REST APIs for mobile backend using AWS Lambda, API Gateway, DynamoDB, and S3, boosting API performance by 30% and ensuring 99.9% uptime for 50K+ users.

Full-Stack Developer   August 2022 – August 2023
Royal Bank of Canada (RBC)   *Toronto, ON*

- Developed Java microservices and Spring APIs with Kafka pipelines, reduced access times for downstream clients by 25%.
- Automated service credentials setup by building a Spring Web tool, cut config time from 10+ to 2 mins, for 200 developers.
- Established a Kafka solution for metadata monitoring, such as offset and timestamp, of 20+ prod topics for 50+ apps.
- Secured secrets for 20+ applications by replacing local storage with Hashicorp Vault for over 10,000 service accounts.
- Migrated HSBC data by building Spring Boot services with Kafka streaming, deployed to OpenShift using Jenkins and UCD.
- Independently migrated 15+ services for Client Deposit accounts across RedHat OpenShift and Cloud Foundry platforms.
- Selected as 'Top Talent' among 1,400 interns and invited to leadership round-tables with EVP of Payments and Retail.

TECHNICAL PROJECTS

Distributed Database with Raft | *Go, RPC, Raft*   January 2025 – May 2025

- Engineered a fault-tolerant, distributed database with Go and Raft consensus algorithm based on Stanford ATC 2014.
- Improved leader election with heartbeats every 250ms to reduce split votes, achieved election completion in < 500ms.
- Achieved replicated logging via RPCs and recovery with snapshots and log pruning to reduce times from 750ms to 300ms.

ClusterVAN | *Python, FastAPI, Scikit-Learn, pandas, Plotly Dash, Groq LLM, FPDF*   January 2025 – May 2025

- Built a platform to recommend business opportunities in Vancouver by K-Means clustering 300K+ businesses over 6 years.
- Integrated Groq LLM to generate 5+ recommendations to open businesses based on nearby competitors and geography.
- Generated an interactive Plotly dashboard with individual business clusters and legend drilldowns for detailed insights.

TL;DReviews | *React.js, Node.js, Lambda, SageMaker, RDS, S3, Hugging Face, Docker*   August 2024 – December 2024

- Created an AWS pipeline to analyze 6000+ reviews to provide 450+ students with insights for better course selection.
- Launched a text summarization model with Google PEGASUS on AWS SageMaker and shipped visualizations with D3.js.
- Implemented AWS security with VPC, IAM roles, Security Groups, and KMS - complying with CIS, CISA, and NIST standards.
- Stored data in AWS RDS, automated CI/CD with GitHub Actions, Vitest, and Postman, and packaged with Docker Images.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, Go, HTML/CSS, R
Frameworks/Libraries: Spring Boot, React.js, Redux Toolkit, Node.js, Express.js, D3.js, pandas, Scikit-Learn, Altair, JUnit
Tools/Technologies: Apache Kafka, Git, Thymeleaf, Docker, AWS Services, RedHat OpenShift, Pivotal Cloud Foundry
Databases: MongoDB, MySQL, Redis, H2, RDS, Elasticsearch