# **ADWAIT KULKARNI**

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## **EDUCATION**

## **University of British Columbia**

Vancouver, BC

BS in Computer Science and Minor in Data Science

September 2020 – May 2025 (Expected)

## **EXPERIENCE**

## **Full-Stack Developer Intern**

Toronto, ON

Royal Bank of Canada (RBC)

August 2022 - August 2023

- Architected microservices with Java Spring to extract deposit accounts from mainframe databases and store in Kafka topics, and improved data retrieval speed by 25% using Redis.
- Launched a Spring and Thymeleaf-based tool on RBC's Innersource platform, reducing retrieval time by 70% for over 200 developers using Hashicorp Vault.
- Contributed to RBC's open-source projects by developing over 10 new features, creating technical documentation resulting in a 50% increase in project adoption, and resolving 20+ bugs.
- Authored a cloud platform migration guide, conducted KT sessions, and independently migrated 10+ apps across platforms using UCD and Cloud Foundry.
- Developed information storage design for 20+ apps, covering 100,000+ profiles and 500,000+ records.
- Composed design approaches to build 5 APIs following RBC's acquisition of HSBC, and manufactured a Kafka monitor tool to monitor topic meta-data for 20+ topics in real-time.

#### **PROJECTS**

## **Upbeat Updates** | React.js, MongoDB, Node.js, Express.js, Sentiment

**April 2024 - July 2024** 

- Developed a positive news website using NewsAPI with React.js, Material UI and Express.js, MongoDB on Vercel, ensuring secure authentication with BCrypt and handling over 1000 requests a day.
- Implemented sentiment analysis using Sentiment and visualization using React-Chart.js to analyze and visualize real-time sentiment of articles and sharing functionality, improving user engagement by 30%.
- Applied K-Means clustering to categorize news articles in real-time as per sentiment and gave users an insight into the positivity of their preferences, increasing user engagement by 50%.

### **People Data Management Solution** | *Java, Spring, MySQL, React.js*

**April 2023 – July 2023** 

- Engineered a microservices-based application for employee data management, handling data for over 500 employees while achieving a data retrieval average time of under 100 milliseconds.
- Constructed a REST back-end for 3 microservices, API gateway, config server, and service registry using Spring, MySQL, and JPA interface.
- Introduced industry-standard logging with SLF4J, leading to 95% reduction in logging issues. Containerized the application with Docker, reducing deployment time by 70%.

**Tweet-Vibes** | Apache Kafka, Java, Stanford NLP, Twitter, ElasticSearch

**August 2022 – July 2023** 

- Architected an application to analyze Tweets in real-time using Spring Boot and Apache Kafka, acquired and processed 1000 tweets per minute from Twitter, and indexed them in Elasticsearch by keywords.
- Built a Twitter Sentiment Analysis tool using a pre-trained machine learning model from Stanford's NLP Library, categorizing each individual tweet into one of 5 sentiment values.
- Implemented OAuth-based user authentication with Twitter API using Twitter4j and structured a real-time tweet processing system with a response time of under 500ms.

## TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, R

Frameworks/Libraries: Spring, React.js, Node.js, Express.js, Pandas, Flask, Mongoose, JUnit

Tools/Technologies: Apache Kafka, Redux Toolkit, Git, Docker, Maven, Jenkins, OpenShift, Cloud Foundry

Databases: MySQL, MongoDB, H2, Redis, ElasticSearch