

GAURAB ACHARYA

Vancouver, BC, Canada

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EDUCATION

University of British Columbia

Bachelor of Applied Science in Biomedical Engineering — Specialized in Systems and Signals

Sep. 2019 – April. 2025

Vancouver, British Columbia

TECHNICAL SKILLS

Languages: Python, Java, SQL, JavaScript, HTML, CSS, R, C, MATLAB, Swift

Technologies: Apache Airflow, Docker, Jenkins, Oracle, PostgreSQL, Clickhouse, Grafana

Frameworks: JUnit, React, Flask, Spring Boot, R Shiny, TensorFlow

EXPERIENCE

QuoteMedia

May 2024 – August 2024, May 2022 – April 2023

Software Engineer Intern

Vancouver, BC

- Improved database query throughput by 10x by tuning data schema and migrating legacy database from **Oracle** to **PostgreSQL**.
- Contributed to the development and testing of a new data pipeline using **SQL**, **Python**, and **Apache Airflow** to migrate data from **Oracle** database to **Clickhouse** to 20x query efficiency on large aggregations for reports.
- Created new API endpoints, from end to end, **Java**, **SQL**, and **Spring Boot** to provide financial data for specific clients and products
- Modernized financial API endpoints to a new version 2 API to improve data loading and response efficiency for a smooth front end experience for banks and other financial institutions.
- Automated http load tests using **Vegeta**, **Python**, **Apache Airflow** and stored results in **InfluxDB** to aggregate load test results 80% faster.
- Created dashboards in **Kibana** and **Grafana** to visualize client API usage, call efficiency, and load test results using timescale log data.

ProCogia

May 2023 – September 2023

R Developer Intern

Vancouver, BC

- Designed and created a R package to debug **R** scripts in less than five seconds providing debug solutions, data operation tracking, and code assisting using the **OpenAI ChatGPT API**.
- Developed with limited user prompts using prompt engineering - setting system roles, and few shot prompting to generate results with 90% consistency.
- Developed the package using R's **R6** class using OOP principles to execute the specific tasks: to interface with the OpenAI API, tracking data operations, and R code generation.

PROJECTS

UBC Capstone Medical Augmented Reality Device | *Unity, C#, ARKit*

- Developed an IOS app using **Unity** to project virtual customized objects for a Medical Device Startup, Vantech Medical, using **Apple ARKit's** image tracking and projection.
- Integrated client's image recognition machine learning model with application so that it can recognize specific objects and manipulate them, with less than 1 second latency.

Posture Position Corrector | *UBC Biomedical Engineering Student Design Team | React Native, JavaScript*

- Designed an app in a team of 4, connected to a gyroscope to track posture data, supporting posture correction physiotherapy.
- Developed posture position algorithms to send a notification when detecting 5° changes in posture.
- Built an app in **React Native** to connect with the hardware gyroscope API and personalize experience per user.

Sneaker Image Recognition App | *Hack the North Winner | Python, TensorFlow Lite, Swift*

- Trained an image classification machine learning model using **Python** and **TensorFlow Lite**, to recognize personal and imprecise images of Jordan sneaker models.
- Built an iOS application, using **Swift**, allowing users to upload photos to recognize the model of Jordan sneakers.
- Contained the machine learning model on device using the **HOT-G API**, to ensure data security and speed.

NBA Statistics Data Analysis | *Python, Dropbase API, R, R Shiny*

- Created visualizations and analyzed NBA stats to find the top five players of each stat category using **Python**.
- Stored CSV files in **Dropbase** to convert CSV files into JSON objects that can be called by the Dropbase API.
- Created a web application using **R** and **R Shiny** to include a responsive navigation bar and drop-down menu to let users filter on statistical categories, seasons, and more in a table view.

LEADERSHIP / EXTRACURRICULAR

Basketball / Coaching

Spring 2016 – Present

RBL Basketball, Drive Basketball, Strathcona Community Centre

- 4x British Columbia Provincial Basketball Championship All-Star.
- Coached over 1500 players in basketball camps and teams, working with three different clubs in Vancouver.