Yash Kumar

(236) 970-9550 | kyash03@student.ubc | github.com/KYash03 | linkedin.com/in/kyash03 | kyash03.com

Education

The University of British Columbia, Kelowna, BC **Sept 2021 – Apr 2026**
Bachelor of Science in Data Science - GPA: 3.8, Dean's List (2022W)

Work Experience

Software Developer Intern, The University of British Columbia, Kelowna, BC **September 2023 – Present**

- Spearheading the development of a module within a Decision Support System (DSS) designed for processing and displaying CSV data in a React-based table, expected to benefit about 9,000 students with course and study-plan decisions.
- Collaborating with cross-functional teams under Dr Abdallah Mohamed's guidance to fulfil user requirements.

React Native Developer Intern, Brokol, Kelowna, BC **September 2023 – October 2023**

- Implemented UI improvements using React Native and TypeScript, including colour scheme adjustments and bottom sheet size optimization, significantly elevating user interface aesthetics and functional efficiency.
- Gained proficiency in Google Firebase, understanding its role and capabilities within the app's framework.

Full Stack Developer Intern, Lexster Law, New Delhi, Delhi **July 2023**

- Independently developed and deployed www.lexsterlawdemo.com using MERN, Tailwind CSS, Material UI, and Vite on Heroku, showcasing co-founders' requirements and receiving positive feedback from 96% of the review team.
- Improved site performance and user engagement with MVC architecture and RESTful APIs, reducing load times by 40%.
- Streamlined form handling by integrating Formik and Yup, reducing form completion time by 60%. Utilized Postman for API testing, resulting in a 40% decrease in user-reported issues during the review team's testing.

Data Science Intern, Consat Orahi, Gurgaon, Haryana **May 2023 – June 2023**

- Designed and automated a dashboard using Looker Studio and Google Spreadsheets, displaying JIRA-based metrics for 5 projects and 180 tickets, resulting in a 65% increase in stakeholder engagement.
- Employed K-Means clustering for determining centroids and DBSCAN for outlier detection to identify bus routes from Orahi's bus tracking system's data, analyzing over 10,000 data points. Utilized GeoPandas for spatial data manipulation and visualization, along with Folium's "PolyLine" feature to connect centroid points.

Projects

UBC Stats Companion | HTML, CSS, JS, jQuery, Bootstrap

- Developed a JavaScript-based and Bootstrap-designed Chrome extension that leverages jQuery and web scraping to enable UBC students to access course statistics from UBC Grades' API and professor ratings from RateMyProfessors.
- Currently has 440+ users and a 5-star rating.

CNN-Based Pneumonia Detection Web App | Python (Flask, Keras, PyTest), GCP App Engine, Bootstrap

- Created a Bootstrap-designed Flask web app for pneumonia detection from X-ray images. Tested with PyTest unit testing.
- Developed a custom CNN with Keras, achieving 92% validation accuracy via image augmentations and hyperparameter tuning using "Hyperband". Successfully deployed the app on Google Cloud Platform's App Engine.

PlantPal | Swift, SwiftUI (PhotosUI), UIKit, Core ML, Create ML

- Developed an iOS app that uses machine learning (image classification) to identify plant diseases from user-uploaded images.
- Engineered the Core ML model using Apple's Create ML, achieving a validation accuracy of 73%.

iClicker Clone | HTML, CSS, JSP, SQL

- Collaborated on a team project in an Agile environment to develop a web-based polling platform, applying object-oriented principles of encapsulation and inheritance, along with UML for system design, within an iterative development approach.
- Implemented Test-Driven Development (TDD) using JUnit for unit testing and Docker for streamlined deployment, ensuring reliability and performance.

Human Activity Recognition Analysis and Web App | Python (Matplotlib, Seaborn, scikit-learn, FastAPI, Gradio), AWS

- Developed and deployed a FastAPI API on an AWS EC2 instance for predicting anthropometric characteristics and activity classes using KNN Regressor and Classifier pipelines. Created a Gradio web app that queries the API and displays the result.
- Improved accuracy through hyperparameter tuning with GridSearchCV.

Skills

Languages: Java, Python, R, JavaScript, TypeScript, SQL, Swift, C, C++
Web Development: HTML, CSS, Node.js, Express.js, React, jQuery, Tailwind CSS, Material UI, Vite, Axios, Mongoose, Bootstrap, Flask, FastAPI, Gradio, JSP, Email JS, JSON, Next.js
Data Science: NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn, Tableau, Keras, TensorFlow, Prophet, Looker Studio
Frameworks & Libraries: React Native, GeoPandas, UIKit, SwiftUI, Streamlit, Core ML, JUnit
Tools, Database and Cloud: PostgreSQL, MongoDB, GCP, AWS, GitHub, Postman, Create ML, Docker, Microsoft SQL Server, Vercel