Vaibhav Lakshmi Santhanam

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Education

University of Toronto – Honours Bachelor of Science *Sept 2021 - Aug 2025*
Computer Science Specialist in **Software Engineering (Co-op)**,
Minor in **Economics**

Technical Skills

Languages: C, Python, Java, Javascript, CSS/HTML,Assembly, SQL, Bash
Developer Tools: VSCode,GitHub,Git,Jira,Jenkins,Postman,IntelliJ,Robot Framework, Selenium, Eclipse, Android Studio
Courses and others: Data Structures and Algorithms, Object Oriented Programming, Operating Systems, Agile (Scrum), GDB, Valgrind, SDLC

Experience

QA Specialist Intern|*SOTI RIL, Connect team* *Sept 2023 - Apr 2024*

- **Automated test** processes with **Selenium**, enhancing efficiency and coverage. Developed **Robot Framework** test suites for functional validation.
- Utilized **Jenkins** to **aautomate build** and **deployment processes**, ensuring consistent integration of applications.
- Streamlined **API testing** workflows with **Postman**, facilitating efficient identification and resolution of issues.

Hackathon

DS3 Datathon|*UTSC* *Jan 2024*

- **Achieved 98.7% accuracy** in developing a **CNN-based traffic sign recognition model**, securing **top rank on Kaggle** and demonstrating expertise in **deep learning** and **image processing**.
- **Led celestial body classification** with a neural network, attaining **97% accuracy** in prediction.
- Developed a **heart disease prediction model** with **83% accuracy**, showcasing **machine learning** capabilities.Collaborated in a **competitive datathon**, securing a **top 5 position** among over **40 teams**.

Projects

EcoPredict|*Python,NLP,BERT, Machine Learning* *Jan 2024 - present*

- Key contributor in developing **EcoPredict** at the **GenAI Earth Hack 2024**,An **AI evaluator tool** to **assess** the **potential of circular economic innovations** using **BERT-based machine learning model**.
- Managed **data preparation, text tokenization, and model training**, adapting to the rapid development environment achieving an **accuracy of 93 percent**.
- Actively extending the project's scope post-hackathon, focusing on advanced strategies for comprehensive analysis and user engagement.

MyBnb Database Project |Java, SQL *May 2023 - Aug 2023*

- **Engineered** an Airbnb-inspired rental platform with features for guests and hosts utilizing **Java** for **backend developmen**t and complex **MySQL queries** for **data retrieval and analytics**.**Developed host tools** for listing enhancement recommendations, boosting user engagement and rental attractiveness.
- Implemented a **dynamic pricing algorithm** to advise hosts on competitive rates based on market **data analysis**.

Concurrent System Monitoring Tool|*C,Unix,Shell Scripting* *Jan 2023 - Apr 2023*

- Architected a **multi-threaded system monitoring** tool in **C**, enabling real-time tracking on Unix platforms.Innovated **inter-process communication** techniques using **pipes**, optimizing system performance and **data accuracy** for 10,000+ monitoring iterations.
- Crafted a custom **GUI** for **memory and CPU** metrics, utilizing visual symbols to reflect system changes, thereby enhancing user interaction.

PrepWell App|*Java, Kotlin, Android Studio, Firebase* *Nov 2022 - Dec 2022*

- A mobile app facilitating students academic planning and course management, ensuring a seamless user interface in **Android Studio** using **Java and XML** following **OOP** principles.
- Implemented **Firebase Firestore** for secure and efficient user data storage and authentication.Utilized the **Model-View-Presenter (MVP)** architecture to structure the app's development and to facilitate systematic testing with **JUnit** and **Mockito**.
- Orchestrated the build process and managed dependencies efficiently using tools like **Gradle, Maven, and XML**.
- Coordinated in a **team of five**, following A**gile methodologies** with **daily scrum sessions**, to drive consistent progress and on-time project delivery.