AARAV RAWAL

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EDUCATION

National University of Singapore 2022-2026
Major - Computer Engineering; Minor - Mathematics

PES University Bangalore 2021-2022
B. Tech in Computer Science; CGPA - 9.23

Deens Academy 2021, 2019
CBSE Grade 12 - 96.6% ; CBSE Grade 10 - 93%

SKILLS AND RELATED COURSEWORK

Skills: Python, C, C++, Javascript, Java, Natural Language Processing (NLP), React, Machine Learning, SQL Apache Kudu, Linux, Apache Spark, Full-Stack Development
Coursework: Software Engineering, Data Structures and Algorithms, Networks, Databases, Operating Systems, Object Oriented Programming, Artificial Intelligence, Machine Learning

EXPERIENCE

NUS MedTech Sep 2023 – Present
Machine Learning Engineer
Singapore
- Working in the Project Physion team to develop a prototype of a smart insole capable of detecting drop foot and other neurological disorders.
- Developed predictive algorithms for the Inertial Measurement Unit to detect the possibility of drop foot in subjects.
- Researched on the possible solutions to efficiently send signals through the insole to the brain to curb drop foot.

Cargill May 2023 – Dec 2023
Big Data Engineer
Bangalore, India
- Developed ETL pipelines for palm oil providers data on the company's Big Data system using Spark.
- Learnt how to implement ETL frameworks and run analysis on Impala and Kudu tables.
- Learnt and implemented Hadoop frameworks for real time palm oil mill data.
- Successfully transformed and delivered mill data for various mills across 14 countries with 93% accuracy.

Human Hope Foundation Oct 2020 – Nov 2020
English Teacher
Shimla, India
- Taught English to middle school underprivileged students online during covid.

PROJECTS

- **ScoreScope** : Developed a web application to help students optimize and organize studying during exams. The application consisted of two features, first one was a past- year paper analyser using advanced NLP. Second was an automated study timetable to help the student meet study goals.
- **Remotely Piloted Vehicle** : Designed and made a remotely piloted robot using Arduino and Raspberry Pi, which scans the environment, locates, maps and detects the colors of obstacles, and can travel through complex paths. The robot successfully made it through a completely unknown maze designed by lab assistants with 100% mapping and obstacle recognition accuracy
- **Text Based Open World game in C** : created a text-based open-world game in C, where the player can provide instructions to perform actions by typing commands.
- **Facial Recognition Attendance Application** : created a project aimed to simplify the attendance-taking system in classrooms by taking photos of the entire class to determine each student's attendance. Cameras were installed in 3 classrooms and attendance was recorded with 88% accuracy for over 300 students.

CERTIFICATIONS

- Independent Software Development Project (Orbital) - Intermediate by NUS.
- Python for Data Science, AI and ML, IBM
- Course in Cyber-Security from PES University.