Avaneesh Kulkarni

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EDUCATION

Birla Institute of Technology and Science, Pilani — **CGPA: 8.35**
B.E. Mechanical Engineering, Minor in Computing and Intelligence , (Minor CGPA: 9.00) — *Oct. 2021 - May 2025*

Suryadatta National School — **87.8%**
Class XII—Science — *Mar. 2019*

SKILLS & COURSES

Technical Skills: *Python,Java,C++,C,Springboot,PostgreSQL Database,MERN Stack,Junit,Selenium Automation*
Relevant Courses: *Machine Learning,Data Structures and Algorithms,Object Oriented Programming ,Operating Systems,Artificial Intelligence,Database Management Systems.*

WORK EXPERIENCE

Software Development Intern — May. 2024 – Jun. 2024
Jio Platforms Pvt. Ltd — *Pune*

- Aided in the development of REST APIs for **CRUD** operations for the **CMS**.
- Configured screens, rows, and content for various launchers using **React** in the **launcher** designer.
- Created a **Server Health Checking** application with **HTML** and **JavaScript** response page.

Market Research Intern — May. 2023 – Jul. 2023
Blu Feather Innovations Pvt. Ltd — *Bangalore*

- Analyzed data from **200+** surveys to inform product development strategies.
- Formulated **SEO strategies** and social media campaigns, **increasing social media engagement by 15%**.
- Analyzed competitor performance and consumer trends for strategic decision-making.

PROJECTS

Social Media Platform API Development │ *Web Development* — Apr. 2024 - May. 2024

- Engineered a robust **RESTful API** for a social media platform leveraging **SpringBoot** framework and **PostgreSQL**.
- Implemented **authentication endpoints** for user login and signup and **JWT-based security**.
- **Developed functionalities** for post and comment management, including creation, retrieval, editing, and deletion.

Server Health Check Application │ *Springboot* — Apr. 2024 - May. 2024

- Integrated a front-end in **JavaScript** and **HTML**, etching data from a **PostgreSQL database**.
- Implemented health checks with valid platform **token authentication** every 15 minutes,with **dynamic page updation**.
- Enabled **on-demand** server status requests for real-time monitoring and troubleshooting.

Early Heart Disease Detection │ *Machine Learning* — Oct. 2023 - Dec. 2023

- Executed Data Preprocessing , Data Cleaning , Feature engineering ,PCA in **Python**.
- Implemented from scratch- **Fisher's Discriminant Analysis,Naive Baye's Classifier,Perceptron Algorithm and Artificial Neural Networks** for predictive modelling of Heart Diseases.
- Inferred and compared results with accuracy's upto **79%**.

Air Traffic Control System │ *Operating Systems* — April. 2024 – May 2024

- Developed a **multi-process** architecture using **POSIX-compliant** C, orchestrating interactions between planes, airports, an Air Traffic Controller (ATC), and cleanup processes.
- Implemented **IPC mechanisms** including pipes and a **single message queue**, ensuring data exchange between processes while maintaining integrity and synchronization.
- Utilized **multi-threading** and **synchronization** primitives such as **mutex** and **semaphore** to enable concurrent handling of arrivals and departures within airport processes, enhancing system efficiency and scalability.

Crime and Communities │ *Machine Learning* — Nov. 2023 - Dec. 2023

- Implemented from scratch-**Decision tree** model with entropy criteria,**Adaboost** using Decision trees and **Multiclass SVM**.
- Compared the models using Time Analysis and Accuracy and optimized results with accuracy's as high as **83%**.

Centralised College Database │ *Database Management Systems* — Apr. 2024 - May. 2024

- Designed and implemented a **Oracle PL/SQL** package featuring procedures and functions to execute DML operations.
- Enforced **Buisness Rules**,enhanced **Data Integrity** and ensured **Consistent Transactions**.

EXTRACURRICULARS

Joint Secretary (Crimson Curtains) — *Streamlined partnerships, revamped workflows,promoted teamwork,conducted workshops and increased productivity.*