#### ASWANTH S

B. Tech Artificial Intelligence and Data Science KARPAGAM COLLEGE OF ENGINEERING

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Leetcode | Github | LinkedIn



Examination	University	Institute	Year	CGPA
В ТЕСН	Anna University	Karpagam College of Engineering	2026	8.03
HSC	State Board	St Antonys Higher Secondary School	2022	7.08
SSLC	State Board	Timbre Tops Matriculation School	2020	6.95

### SKILLS SUMMARY

Languages: Python, Java

Frameworks: NumPy, Pandas, Scikit-learn, TensorFlow, Matplotlib, Keras, Spark, Hadoop, Streamlit.

Tools: Tableau, PowerBI, MySQL, MongoDB, Git, Github, Docker.

Platforms: Jupyter Notebook, Visual Studio Code, IntelliJ, Eclipse, Google Colab.

Web Development: HTML, CSS, JavaScript, React, Node.js, Figma.

#### **KEY PROJECTS**

# CHATTY - Full Stack Realtime Chat App | MERN Stack Developer

[Feb 2025 - Present]

- Description: Developed a real-time chat application using MERN stack with Socket.IO integration for **instant messaging** and **user presence tracking** with a **REST API** backbone.
- Role: Full Stack Developer, responsible for implementing both frontend and backend functionality with secure authentication and ensuring alignment with **Business Requirements** and **Technical Requirements**.
- Outcome: Implemented JWT authentication and real-time messaging with **Socket.IO**, Achieved seamless deployment with proper **backend-frontend integration**, Enabled online/offline status tracking for users.

### **Data Version Control System | (Team Member)**

[Mar 2024-May 2024]

- Engineered a Git-integrated Data Version Control (DVC) system, enabling efficient dataset tracking, versioning, and rollback capabilities across data-driven workflows, ensuring adaptability in a Changing Environment.
- Enhanced collaborative workflows by enabling parallel versioning, access control mechanisms, and metadata tracking, ensuring efficient data governance and compliance.
- Strengthened data lineage tracking and access control by leveraging Git hooks, commit history auditing, cryptographic hashing, and metadata versioning, ensuring immutability, traceability, and regulatory compliance in data workflows.

### **Vehicle Routing Problem Optimization Using Genetic Algorithm | Self Project**

[Dec 2024 - Jan 2025]

- Objective: Developed a Genetic Algorithm (GA) using DEAP to solve the Vehicle Routing Problem (VRP), optimizing delivery routes through crossover, mutation, and selection with an emphasis on Technical implementation.
- Reduced operational costs by 30%, greatly improving delivery efficiency with a scalable algorithm design approach.
- Applied key insights from a **Maze Solver Project**, successfully leveraging GA techniques for shortest-pathfinding solutions.
- Delivered a robust solution using Python and DEAP, enabling efficient, adaptive logistics optimization processes.

# Dimensionality Reduction with K-Means and Gaussian Naive Bayes | Self Project

[Jan 2025 – Feb 2025]

- Built a classification pipeline using **Python** and **Scikit-learn** to analyze human activity data from smartphone sensors.
- Applied K-Means clustering for dimensionality reduction, improving model efficiency and achieving an accuracy of 81%.
- Reduced training and inference time by 83.7% through feature selection and optimization techniques.

#### **CERTIFICATIONS**

- Qlik Business Analyst Qualification
- NPTEL Python for Data Science | Data Analytics with Python | Cloud Computing | Big Data Computing (Elite)

## **EXTRA-CURRICULAR ACTIVITIES**

- Participated in Workshop on AI and ML Models.
- Participated in Paper Presentation on Emerging Technologies.

• Solved 350+ DSA problems on LeetCode.

[12 Apr '22]

[22 Oct'24]