

ARYAN SINGH

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EDUCATION

B.Tech in Computer Science Vellore Institute of Technology *Expected 2026* **CGPA: 8.35**

WORK EXPERIENCE

Smart Decision AI June 2024 - July 2024
Front-End Developer Intern

- Built a **React-based analytics dashboard** using **React-Grid-Layout** and **Material UI** for real-time business insights.
- Integrated **Microsoft Azure APIs** with optimized caching, improving performance by **40%**.
- Contributed to **ERP automation and digital transformation** initiatives in an agile, cross-functional environment.

PROJECTS

EEG Signal Analytics for Seizure and Migraine Detection (Python, Scikit-learn, PyTorch)

- Designed an **EEG signal processing pipeline** using **FIR/IIR filters** to extract key frequency bands relevant to neurological health.
- Applied **SVM, Random Forest**, and **BiLSTM** models to achieve **95% prediction accuracy**.
- Highlighted healthcare potential by integrating biomedical signal analysis for **early diagnosis applications**.

Multimodal Polarity Detection (Python, PyTorch, Transformers)

- Built a **vision-language model** for **image-text sentiment analysis**, achieving **92% accuracy**.
- Utilized **multitask learning** for efficient shared encoder training, cutting inference time by **30%**.
- Hands on experience with **transformer models** and efficient **data preprocessing pipelines** for multimodal tasks.

Agentic AI Discord Bot (CrewAI, Discord.py, Python)

- Built an **agentic AI framework** using CrewAI, where multiple agents collaborated on **context retrieval**, reasoning, and task execution.
- Created a smart **workflow layer** with shared memory and role-based coordination for adaptive decision-making.
- Improved inter-agent communication and task handling, increasing reasoning speed by **35%**.

SKILLS

Programming: Python, Java, SQL, R

Data Analytics: Data Cleaning, Visualization (Pandas, NumPy, Matplotlib), Business Insights, Power BI, Tableau

Machine Learning: Scikit-learn, PyTorch, TensorFlow, Predictive Modeling, Data Pipelines

Cloud & Infrastructure: AWS, Microsoft Azure, Cloud Deployment, CI/CD

Enterprise Systems: ERP Integration, SAP Analytics, Oracle DB, SQL Server

AI & Dev Tools: Replit, Claude Code, LangChain, LlamaIndex, Hugging Face, Context Engineering

CERTIFICATIONS

Oracle Cloud Infrastructure 2025 Certified Generative AI Professional