Aditi Agrawal

✉ aditi.agrawal2112@gmail.com GitHub in LinkedIn 🌐 Portfolio

EDUCATION

Master's in Computer Science	**Sept 2024 - March 2026**
University of California, Davis, USA | **CGPA: 3.9/4.0**	
Bachelor of Technology in Computer Science and Engineering	**Sept 2020 - June 2024**
MIT-WPU, Pune, India | **CGPA: 9.21/10.0**	
BS in Data Science and its Application	**Sept 2021 - Dec 2024**
IIT-Madras, Madras, India | **CGPA: 8.08/10.0** | **Project CGPA: 9.25/10.0**	

PROFESSIONAL EXPERIENCE

Research Assistant | Speech Neuroengineering and Cybernetics Lab **April 2025 – Present**
- Collaborated with Meta's Ethical Neurotechnology program to develop durable and equitable machine learning models for wrist EMG gesture decoding on a demographically diverse dataset.
- Performed data analysis and feature extraction of surface EMG signals to investigate the impact of age, BMI, and physiological conditions on model performance and algorithm fairness.

Data Analytics Intern | fAIshion Inc., USA **June 2025 – Aug 2025**
- Built an AI-powered recommendation system using OpenAI's CLIP to analyze product images and text, automating data extraction and cleaning from APIs.
- Designed a collaborative filtering (co-occurrence matrix) model using try-on history, and developed dashboards for trend and performance analysis with product and data teams

Graduate Teaching Assistant | UC-Davis - Graduate School of Management **Jan 2025 – June 2025**
- ***Applications Domains*** : Assisted with exploring high-impact analytics applications across domains such as social network analytics, healthcare analytics, IoT, supply chain analytics, and marketing analytics. Supported students in understanding advanced analytics concepts and real-world applications.
- ***Technology Management***: Facilitated weekly discussion sessions for 150+ students to provide insights into managing firms in high-tech industries. Improved course efficiency by 20% through data analysis of student performance trends.

Intern Developer | Globeminds Pvt Ltd, Pune, India **Jan 2023 – Dec 2023**
- Increased operational efficiency by 30% through data analysis and process optimization. Gathered and translated user requirements into technical specifications, resulting in a 25% reduction in development time.
- Collaborated with design and engineering teams to deliver user-centric solutions, improving user retention by 20%.

ACADEMIC PROJECTS

Marathi Dialect Detection System
- Processed 500+ audio clips into standardized segment, extracted chroma features/MFCCs, optimized hyperparameter.
- Trained models (SVM, KNN, DT, Gradient Boosting) with F1-scores of 0.95.

Business Data Management
- Collected and cleaned business data to optimize inventory and capital investment strategies.
- Analyzed data to identify cost-saving opportunities and operational improvements.
- Delivered recommendations adopted by stakeholders, reducing costs by 20% and improving efficiency by 15%.

RESEARCH PAPER/PUBLICATIONS

Threat Detection in Social Media Networks Using ML-Based Network Analysis | Link **May 2023**
- Developed an ANN-based intrusion detection model for social media network traffic using the UNSW-NB15 dataset.
- Performed data preprocessing, feature engineering, class imbalance handling, and model evaluation using accuracy, recall, F1-score, and ROC-AUC.

Food Waste Management with Community Collaboration | DOI **May 2023**
- Developed with MySQL, Apache; Frontend: HTML, JavaScript | International Journal of Research and Analytical Reviews (IJRAR). Published research on scalable, community-driven food waste solutions.

SKILLS

Programming & Web Development: Python, SQL, FastAPI, JavaScript, HTML, CSS, Flask, SQLite

AI/ML : Pandas, NumPy, Scikit-learn, Seaborn, Matplotlib, PyTorch, TensorFlow, LLM Integration Fine-tuning, Prompt Engineering

Business Intelligence & Analytics Tools: Tableau, Power BI, Google Analytics, Metabase, Data Storytelling

Product & Business Concepts: User Research, Product Strategy, Roadmapping, User Stories, Competitive Analysis, Product Analytics, Data Visualization, A/B Testing

DevOps & Project Tools: Git, Postman, Figma, GitHub, Docker, Kubernetes, Jira, MS Office