Ajay Madana

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OBJECTIVE

Aspiring data scientist passionate about AI engineering, machine learning, and creating data-driven technology solutions. Eager to develop innovative and impactful intelligent systems.

EDUCATION

Amrita Vishwa Vidyapeetham **Tamil Nadu,Coimbatore, India**
B-Tech, Computer science 8.1 CGPA *2021 - 2025*

BGS National Public School **Karnataka, Bengaluru, India**
Higher Secondary 94% *2019 - 2021*

SKILLS

Programming Languages: Python, SQL, C++
Libraries & Frameworks: Scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, Matplotlib, Seaborn, Keras, XGBoost
Cloud & Tools: AWS (S3, Lambda, SageMaker), Docker, Apache Airflow, Git, Jupyter, Tableau, MongoDB, Redshift
Machine Learning & Data Science: Regression, Classification, Clustering, NLP, Deep Learning, Feature Engineering, Time Series Forecasting, Model Deployment, Statistical Analysis, A/B Testing, Predictive Modeling
Soft Skills: Cross-functional Collaboration, Communication (oral & written), Stakeholder Engagement, Storytelling with Data, Critical Thinking, Problem-solving, Leadership, Teamwork, Agile Project Management

WORK EXPERIENCES AND RESEARCH

Project Intern **SAP Labs**
Feb 2024 – Apr 2024

- Led development of an OCR-powered spending solution, cutting harmful expenses by 30%.
- Built AWS S3, Textract, and DynamoDB pipeline, boosting receipt processing efficiency by 40%.
- Drove 20% uptick in sustainable spending compliance through user engagement features.

Final Year Project & Research **Amrita Vishwa Vidyapeetham**
Aug 2023 – Apr 2025

- Applied multifractal analysis with Laplacian centrality to identify influential seed nodes, improving time efficiency by 45%.
- Co-developed a Node Contribution Factor metric in Python and Jupyter Notebook under Dr. T. Ramraj's guidance.

PROJECTS

Student Performance Prediction

Built a hyperparameter-tuned Linear Regression model (87.77% accuracy). Integrated modular coding, error handling, logging, AWS, and CI/CD pipelines for deployment. Used setup.py for packaging to demonstrate ML and cloud engineering best practices.

Retail & Warehouse Sales Trend Analysis & Inventory Optimization – Montgomery County

Applied ML to improve sales forecasts by 20% and reduce stockouts by 15%. Leveraged AWS SageMaker, S3, and Tableau for training, storage, and dashboard visualization.

GenAI DataQA Pipeline

Built a scalable pipeline using LlamaIndex and Gemini to enable natural-language querying on complex datasets via embedding generation and LLM-based retrieval.

CERTIFICATIONS

- **MongoDB - Complete Developer's Guide**
- **Machine Learning - Training Program with Coincent**
- **Stanford University Machine Learning Specialization**