AKASH AGALAVE

Pune, India

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EDUCATION

Dr. D.Y. Patil University　　　　　　　　　　　　　　　　　　　**Dec 2021 - June 2025**
B.Tech - Computer Science and Engineering | CGPA - 8.45　　　　　　　　　*Pune, India*

Maharashtra Vidyalaya Barshi　　　　　　　　　　　　　　　　　　**May 2019 – June 2021**
Higher Secondary Education (Science) | Percentage - 88%　　　　　　　　　*Barshi, India*

EXPERIENCE

Euron　　　　　　　　　　　　　　　　　　　　　　　　　**July 2025 - August 2025**
AI Developer Intern　　　　　　　　　　　　　　　　　　　　　　*Remote, India*
- Built an AI-powered **medical chatbot** using LangChain, Pinecone, and OpenAI embeddings.
- Implemented **vector search** for fast and relevant medical information retrieval.
- Developed Flask backend and containerized using **Docker** for scalability.
- Deployed on **AWS EC2** using images from **AWS ECR** with CI/CD automation.

CodersCave　　　　　　　　　　　　　　　　　　　　　　　**May 2024 - June 2024**
Data Science Intern　　　　　　　　　　　　　　　　　　　　　　*Remote, India*
- Developed a **Spam Classifier** using **NLTK** and ML, achieving **98.7% accuracy** on test data.
- Streamlined text preprocessing, tokenization, and feature extraction for training pipeline.
- Delivered an **F1-score of 0.96** through precision-tuned model evaluation.

PROJECTS

FraudGuard – Real-Time Fraud Detection & MLOps Platform | GitHub　　　**Nov 2025 – Jan 2026**
- Designed a **real-time fraud detection platform** for **highly imbalanced financial transactions** with **sub-200 ms latency** constraints.
- Achieved **94.5% PR-AUC**, sustaining **P95 < 100 ms** and **P99 < 220 ms** latency under **10K+ RPS load testing**.
- Built a **LightGBM** pipeline with advanced **feature engineering** and imbalance handling, ensuring reproducible training via **DVC + MLflow**.
- Deployed a **Kubernetes-based microservices system** on **AWS EKS** using FastAPI, **Kafka**, observability, and accuracy-triggered CI/CD retraining.

Real-Time YouTube Sentiment Analysis System | GitHub　　　　　　　　**Mar 2025 - Apr 2025**
- Engineered a **real-time YouTube sentiment analyzer Chrome extension** using fine-tuned **LightGBM** with **TF-IDF** trigram features.
- Attained **86% accuracy** via **Optuna Bayesian** tuning with expanded search space over **50 trials**.
- Resolved **class imbalance** using ADASYN and **LightGBM** class-weight, boosting model performance.
- Deployed scalable **Flask** API on **AWS EC2** with **Docker**, **ECR**, and **CI/CD** via **AWS CodeDeploy** for real-time inference.

Taxi-Demand-Forecasting-System | GitHub　　　　　　　　　　　　**Feb 2025 - Mar 2025**
- Constructed a real-time **Uber demand prediction** system across NYC neighborhoods using **GradientBoostingRegressor**, trained on a large dataset of **34.5 million Uber trips (Jan–Mar 2016)**.
- Reached **93% accuracy** forecasting **15-min** demand using spatiotemporal features for efficiency.
- Built Streamlit app with **Docker** backend enabling real-time demand queries and maps.
- Deployed scalable **AWS EC2** with Load Balancer, **Auto Scaling**, and CI/CD via **CodeDeploy** .

PROBLEM SOLVING

• Solved 200+ Data Structures Algorithms problems across LeetCode and GeeksforGeeks, strengthening data structures, algorithms, and problem-solving fundamentals.

TECHNICAL SKILLS

Languages: Python, SQL
Technologies: Machine Learning, Deep Learning, NLP, Transformers, Hugging Face
Frameworks & Libraries: PyTorch, Langchain, SHAP
Database: SQL,Vector Database
MLOps-Tools: Git, GitHub, DVC, MLflow, Github Actions, DagsHub, Prometheus, Grafana,kafka
Deployment & Cloud Services: FastAPI, Docker, AWS,Kubernetes (EKS)