

# AKASH AGALAVE

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## EDUCATION

### Dr. D.Y. Patil University

B.Tech - Computer Science and Engineering | CGPA - 8.45

Dec 2021 - June 2025

Pune, India

### Maharashtra Vidyalaya Barshi

Higher Secondary Education (Science) | Percentage - 86.85%

May 2019 – June 2021

Barshi, India

## EXPERIENCE

### Euron

AI Developer Intern

August 2025

Remote, India — Individual project-based

- Designed and implemented AI applications by developing **machine learning models** for a medical chatbot using domain-specific **data**.
- Implemented **vector search** for fast and relevant medical information retrieval.
- Developed backend services and application **systems**, containerized using Docker to support **scalable deployment**.
- Deployed on **AWS EC2** using images from AWS ECR with CI/CD automation.

### CodersCave

Data Science Intern

May 2024 - June 2024

Remote, India — Individual project-based

- Developed and trained **machine learning models** on text data, achieving 80.7% accuracy.
- Streamlined text preprocessing, tokenization, and feature extraction for training pipeline.
- Evaluated and optimized **model performance**, delivering 0.72 F1-score.

## PROJECTS

### AutoML Brain – ML Governance & Canary Deployment Platform | [GitHub](#) Jan 2026 – Feb 2026

- Built a **cloud-native autonomous ML governance platform** on AWS EKS with reproducible pipelines and stable/canary deployments.
- Achieved **82% P95 latency reduction** 2000 ms → 350 ms through inference optimization and Kubernetes resource tuning.
- Implemented **Prometheus-driven canary promotion** using real-time P95 latency and error-rate validation before 100% traffic shift.
- Delivered an **LLM-powered audit layer** generating automated JSON/PDF reports from ROC-AUC 0.83+%, F1 0.63+%, PSI drift, and SHAP.

### FraudGuard – Real-Time Fraud Detection & MLOps Platform | [GitHub](#) Nov 2025 – Jan 2026

- Designed a **real-time fraud detection platform** for **highly imbalanced** financial transactions, optimized for low-latency, high-throughput inference under production constraints.
- Improved **model performance** to 94.5% PR-AUC, sustaining 1.2K RPS with P95 < 25 ms and P99 < 32 ms inference-path application latency, measured via Prometheus behind an AWS ALB.
- Built a LightGBM pipeline with advanced feature engineering and imbalance handling, ensuring reproducible training via DVC and 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.

## TECHNICAL SKILLS

**Languages:** Python, SQL

**Technologies:** Machine Learning, Deep Learning, NLP, RAG, AI Agents , Hugging Face

**Frameworks & Libraries:** PyTorch, Langchain, SHAP

**Database:** SQL,Vector Database

**MLOps-Tools:** Git, GitHub, DVC, MLflow, Github Actions, DagsHub, Prometheus, Grafana

**Deployment & Cloud Services:** FastAPI, Docker, AWS,Kubernetes (EKS)