Aniket Kumar

aniketjmsr98@gmail.com | (716)436-8247 | linkedin.com/in/anik005 | github.com/Anikkk | Sunnyvale, CA

SUMMARY

Computer Science Master's student with **4+** years of experience in **backend** and **AI-driven development.** Skilled in **Python, OOP, and cloud technologies** with expertise in building scalable **RESTful microservices**, production-grade **LLM applications, RAG pipelines,** and **intelligent chatbots** to enhance user experiences.

EDUCATION

University at Buffalo | MS in **Computer Science**(3.54/4.0 CGPA)

- Coursework: Machine learning, Deep Learning, Reinforcement Learning, Database Management, Data Intensive Computing

Vellore Institute of Technology | B.Tech in **Electrical Engineering**(3.6/4.0 CGPA)

- Coursework: DBMS, Probability and Statistics, Data Structures and Algorithm

SKILLS

- **Programming Languages:** Python, C, C++, JavaScript, Typescript, Rust
- **Cloud Platforms:** AWS (EC2, S3, Lambda, RDS, EKS), GCP (GKE, Cloud Functions), Azure
- **AI/ML Tools:** LangGraph, LangChain, Pytorch, Model Context Protocol, n8n, VertexAI, Vercel, Cursor, Bolt, Windsurf
- **Infrastructure:** Kubernetes, Docker, Helm, Prometheus, Grafana, Infrastructure as Code (IaC), CI/CD pipelines
- **Distributed Systems/Databases:** PySpark, Hadoop, PostgreSQL, MongoDB, Kafka, Redis, MySQL, SSMS, ChromaDB
- **Others**: Tensorflow, GenAI, Transfer learning, CNN, RNN, Transformer, Git, Mixture of Experts(MOEs)

PROJECTS

Therapy.ai [Link] [Link]

- **[LoRA fine-tuning, Ollama, Flask, ReactJS, Gen AI, GCP, Mixture of Experts(MOEs)]** Spearheaded the development of an AI-powered mental health companion prototype featuring real-time voice-and video-enabled companion using Mistral-7B LLM fine-tuned using LoRA for empathetic, emotionally aware responses and achieved 85% positive user feedback.

AskDB - NLP-Powered Database Query Engine[Link]

- **[LangChain, Neo4j, RAG, FastAPI, ChromaDB, MongoDB, Azure SQL, Redis, ReactJS]** Developed an AI agent for real-time query generation, enabling 50+ non-technical users to self-serve data and reducing report creation time by 75%.

Autonomous Driving using Reinforcement Learning[Link]

- **[DQN, DoubleDQN, TRPO, PPO, A2C, A3C algorithms, MetaDrive]** Implemented a training pipeline with LiDAR, camera, and vector data, boosting navigation accuracy by 25% through reward structure and experience replay optimization.

Multi-Class Image Classification[Link] [Link]

- **[Computer Vision, NLP, Transfer Learning, BERT, Pytorch]** Created a multi-class image classifier with 92.6% validation accuracy and 91.3% F1 score, integrated a BERT-based recipe recommendation system, and deployed on Hugging Face with real-time inference and API integration.

WORK EXPERIENCE

ML Engineer Intern | VELOCITYROAD.ai | Sunnyvale, CA Jul 2025- Aug 2025

- **Workflow Automation:[n8n, LLMs, RAG]** Automated meeting-transcript workflows with n8n, LLMs, and RAG, generating summaries, statements of work, and client proposals to streamline negotiations and help mid-scale enterprises adopt AI solutions.

Software Engineer 2 | APPLIED BELL CURVE Nov 2023- Aug 2024

- **Time Series Forecasting:[Supervised Learning, AWS]** Designed and deployed a multi-model ML pipeline on AWS to predict seasonal cotton prices with 95% accuracy, enabling optimized purchasing strategies and saving $2.1M annually.
- **Containerization:[Kubernetes, Docker, Helm, Prometheus, Grafana, Distributed Systems, Fault Tolerant]** Migrated 80% of applications to containers, reducing deployment errors by 50% and tripling release frequency, while implementing an observability platform for 100+ microservices that cut MTTR from 45 minutes to under 5 minutes.
- **API Optimization:[GraphQL, REST API, Flask, DynamoDB]** Built GraphQL API layer using Apollo Federation to unify cotton data from 6 different sources, minimizing frontend API calls by 70% and improving page load time by 40%.

Software Engineer | WIPRO TECHNOLOGY Aug 2020 - Nov 2023

- **ETL Modernization:[Pipeline Automation, Azure Data Factory, Azure Synapse, Airflow]** Migrated legacy ETL workflows to Azure-native frameworks, orchestrating pipelines with Airflow and loading into Azure Synapse, improving data availability and reducing downtime by 60%.
- **Data Pipeline Optimization:[Data Modeling, Parquet, Indexing Strategy]** Introduced an indexing strategy to optimize Parquet queries, cutting query latency by 60% and increasing data pipeline throughput by 45%.
- **Leadership & Cross-Functional Collaboration:** Led code and design reviews to uphold quality standards, resolved 100+ critical customer escalations via root-cause analysis, and mentored 4+ new hires on tools and workflows.

AWARDS AND ACHIEVEMENTS

- **Publication** : Automatic Vegetable Differentiator in 2017 IEEE ((https://ieeexplore.ieee.org/document/8391985).
- **Hulk Award** : Won a performance excellence award for Top Performer of the quarter.
- **Music Club President** : Led a music club of 50+ members and helped the team win first prize in the Legato Competition.