

Bhargav Pamidighantam

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Education

Northeastern University

M.S. in Computer Science (Machine Learning, Distributed Systems), GPA: 3.7/4.0

Sep 2024 – May 2026

Boston, MA

Indian Statistical Institute

Postgraduate Diploma in Applied Statistics (Statistical Methods for ML)

Oct 2022 – Oct 2023

India

ICFAI Business School

Bachelor of Business Administration

Aug 2019 – May 2022

India

Certifications: Stanford University — Machine Learning Specialization | Google — Data Analytics, Project Management

Experience

Apple

AI/ML Data Operations Analyst

Mar 2023 – Mar 2024

Hyderabad, India

- Performed data annotation and **QC** for **speech, vision, multimodal ML models** supporting Siri products.
- Reviewed **700K+** samples identifying labeling errors and failure patterns in **LLM and ASR** model outputs.
- Conducted qualitative analysis across English dialects, documenting error categories for model iteration and improvement.
- Maintained annotation consistency in high-volume ML pipelines using **QA protocols** and escalation workflows.

SSP 2000 Inc.

Software Engineering Intern

May 2021 – Jul 2021

Hyderabad, India

- Built **inventory tracking system** using **Python and PostgreSQL** managing **50,000+ records** across departments.
- Designed normalized database schema and implemented **REST APIs** for high-volume asset update and queries.
- Improved data accuracy by replacing spreadsheet workflows, reducing duplicate entries by an estimated **30%**.

Projects

Secure RAG Systems for Defense Applications |Research Synthesis

2026

- Synthesized **45+ research papers** on **RAG systems, LLM security, log analysis** identifying production security gaps.
- Architected **few-shot learning pipeline** with **hybrid retrieval (semantic + keyword)** and **LLM reasoning** for log anomaly detection.

Explainable ML for Alzheimer's Disease |Research Synthesis

2025

- Built **XGBoost** model on **1,209 blood samples** achieving 68.6% accuracy for Alzheimer's disease classification.
- Applied **SHAP, SMOTE, feature selection** identifying **biomarkers** (OAZ1, UBC, RPF2) for clinical deployment.

F1 Race Strategy Optimizer – Team Project

Apr 2026

- Developed end-to-end **F1 race simulator** with **ETL pipelines** from Ergast API, **XGBoost** models for tire degradation, and driver performance prediction in **MLOps** framework.
- Architected **GCP** infrastructure using **BigQuery, Dataflow, FastAPI** integrating Monte Carlo race simulation with pit strategy optimization engine.

Food Delivery Database System

2025

- Designed **MySQL** database schema and implemented **Python** backend with **RESTful APIs** for food delivery platform.
- Built **Streamlit** dashboard with multi-role access control, transaction management, and real-time order tracking.

Rate-Limited API Gateway with Circuit Breaker Pattern

2026

- Built **FastAPI Gateway** with **token bucket rate limiting, circuit breaker pattern**, achieving **1000+ requests/sec** throughput.
- Implemented **observability layer** with latency tracking (p50-p99), error monitoring, and comprehensive **pytest** test suite.

Cross-Platform PyTorch Training Framework

2025

- Built **deep learning** training framework supporting **CUDA, MPS, CPU** with automated checkpointing and early stopping callbacks.
- Tested on **CNN, ResNet** architectures (CIFAR-10 dataset) demonstrating cross-platform ML model portability.

Technical Skills

Programming: C, Python, Java, SQL, R, Go (Golang), Node.JS

ML & Data: PyTorch, TensorFlow, Scikit-learn, Hugging Face (BERT, T5), XGBoost, SHAP, RAG, LLM

Backend & APIs: FastAPI, Flask, RESTful APIs

Visualization & Interfaces: Matplotlib, Seaborn, Tableau

Systems & Infrastructure: Docker, Kubernetes, Git, CI/CD (GitHub Actions), AWS (EC2, S3), Terraform, Airflow, GCP, Dataflow

Databases & Tools: PostgreSQL, MySQL (Workbench), MongoDB (Compass)

Soft Skills: Cross-functional leadership, Critical Thinking, Verbal/Written Communication, Customer Focus