Bhargav Pamidighantam

U.S. Citizen

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Education

Northeastern University *Sep 2024 – May 2026*
MS, Computer Science, focused in **Machine Learning**, GPA: 3.7/4.0

Indian Statistical Institute *Oct 2022 – Oct 2023*
PGD in Applied Statistics, focused in **Statistical Methods for Machine Learning**

ICFAI Business School *Aug 2019 – May 2022*
Bachelor of Business Administration

Certifications:

- **Stanford University**: Machine Learning Specialization, Oct 2025
- **AWS**: Cloud Practitioner (ongoing)
- **Google**: Data Analytics Certificate, Project Management Certificate

Experience

Apple *Mar 2023 – Mar 2024*
AI/ML Data Operations Analyst Hyderabad, India

- Designed and implemented a **Python**-based framework to evaluate multilingual **LLMs** across **700K+** voice/audio and text prompts, identifying cross-dialect failure modes and informing retraining strategies.
- Leveraged linguistic expertise in Singaporean English to fine-tune NLU models, reducing cross-dialect error rate by **62%**
- Collaborated with ML engineers to optimize annotation and evaluation pipelines, reducing experiment turnaround time.

SSP 2000 Inc. *May 2021 – Jul 2021*
IT Operations Intern Hyderabad, India

- Built a digital inventory tracking system for R&D operations, improving asset traceability and reducing manual errors.
- Utilized **Python** for the backend APIs and **PostgreSQL** for the database.

Technical Skills

Languages: Python, Java, SQL, R
AI/ML Model Development: **PyTorch, Keras, Scikit-learn, Hugging Face, XGBoost, SHAP**, TensorFlow, Model Training & Optimization, Model Evaluation & Quality Metrics, Hyperparameter Tuning
ML Infrastructure & Data Processing: **Pandas, NumPy**, Large-scale Data Processing, Data Pipelines
Specialized ML: NLP, Information Retrieval, Speech/Audio Annotation, Statistical Modeling
Cloud/Database: AWS (in progress), MySQL, Snowflake, PostgreSQL, MongoDB
Other: Git, Linux, CI/CD, Data Structures & Algorithms

Projects

Explainable Machine Learning for Alzheimer's Stage Classification *Oct 2025 – Present*

- Trained and optimized multiclass models including deep neural networks, Logistic Regression, SVM, Random Forest, XGBoost for Alzheimer's stage prediction using blood gene expression and clinical data with 20K+ features.
- Conducted systematic model evaluation using cross-validation, confusion matrices, and performance metrics. Applied **SHAP** explainability to interpret feature importance and validate biological relevance.
- Optimized **XGBoost** through feature selection, hyperparameter tuning, and data processing techniques for high-dimensional datasets, improving model accuracy and reducing computational overhead.

Clinical Text Summarization using T5 Transformer *Jul 2025 – Aug 2025*

- Built end-to-end NLP pipeline using **Python, PyTorch, Hugging Face Transformers** for training and evaluating T5 models on 3700+ medical notes, implementing data processing workflows with **Pandas, Scikit-learn**.
- Achieved 97% text compression through iterative model training and prompt optimization. Evaluated model quality via ROUGE metrics and human assessment. Visualized results using **Matplotlib, Seaborn**.