Pinal Gajjar

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EDUCATION

Yeshiva University, Katz School of Science and Health – ***New York, NY*** **Jan 2025**
Master of Science in Artificial Intelligence GPA- 3.83

Gujarat University – ***Ahmedabad, IN*** **Jun 2021**
Bachelor of Science in IT - Software Development GPA- 3.56

SKILLS

- **Programming and Databases:** Python, R, Java, SQL, MySQL, PostgreSQL, MongoDB, Neo4j
- **AI/ML:** Supervised & Unsupervised Learning, Deep Learning (CNNs, Transformers, RNNs), Generative AI, Self-Supervised Learning, Multimodal Learning, Reinforcement Learning, Retrieval-Augmented Generation (RAG), Autonomous AI Agents, LLM
- **MLOps:** AWS (S3, Lambda, SageMaker), Google Cloud (Vertex AI, BigQuery), Hadoop, ETL/ELT, Kubernetes, Docker, CI/CD
- **Libraries:** TensorFlow, PyTorch, Scikit-learn, Hugging Face Transformers, Langchain, OpenAI API, XGBoost, Ollama
- **Tools:** Tableau, Power BI, Looker, Matplotlib, Seaborn, FastAPI, Model Context Protocol, Claude, DeepSeek

WORK EXPERIENCE

AI/ML Engineer | Community Dreams Foundation | Remote, USA **Sep 2024 - Present**
- Developed and deployed predictive models for adaptive decision-making in eco-friendly infrastructure, leveraging reinforcement learning and deep neural networks
- Optimized model efficiency by 35% using ML workflows and deployment pipelines, integrating MLOps best practices
- Designed real-time recommendation engines for sustainability initiatives, enhancing project impact assessment through personalization models
- Built scalable ETL pipelines to process 12K+ structured/unstructured data points, reducing data ingestion latency by 40%

Marketing and Data Analyst | Blissful7 | Ahmedabad, IN **Nov 2021 - Aug 2023**
- Developed AI-powered audience segmentation models, utilizing K-Means, DBSCAN, and hierarchical clustering to improve customer targeting by 23%
- Implemented deep learning-based predictive models (XGBoost, CNNs, Transformers) to enhance marketing personalization at scale, increasing ROI by 27%
- Configured large-scale A/B experiments, leading to a 15% boost in conversion rates through personalized recommendation systems

Data Analyst | Modiant World | Ahmedabad, IN **Aug 2020 – Sep 2021**
- Increased user engagement by 22% building content recommendation models (SVD, Word2Vec, BERT embeddings)
- Developed reinforcement learning-based optimization algorithms, improving automated campaign performance by 18%
- Deployed ML models into production using TensorFlow Serving and FastAPI, reducing model inference time by 30%
- Optimized large-scale data pipelines for personalization and audience targeting, reducing data retrieval time by 35%

PROJECT EXPERIENCE

Advancing Text-to-Music Generation: Evaluating State-of-the-Art Models and Techniques
- Generated a high-fidelity text-to-music generation model by fine-tuning MusicLM, JEN-1, MusicGen, and Mustango
- Customized deep learning architectures in TensorFlow and PyTorch, enhancing model performance by 9% compared to SOTA models
- Explored spectrogram-based vs. waveform-based generation approaches, leveraging diffusion models and NLP-music alignment

Multimodal AI for Content Moderation & Safety – Hateful Meme Detection
- Developed a hate speech detection model leveraging VisualBERT and RoBERTa, integrating NLP and Computer Vision
- Optimized enforcement strategies by building classification pipelines that improved moderation accuracy by 18%

Robust Crowd Density Estimation Using Wi-Fi RSSI and Machine Learning
- Developed a machine learning framework for real-time crowd density estimation using RSSI to enhance localization accuracy
- Deployed multiple ML models (Random Forest, CNN, XGBoost, and KNN), achieving a 15% higher accuracy than baseline models
- Applied advanced statistical methods (Bayesian inference, bootstrapping, PCA) to improve model generalizability

CERTIFICATES

- Machine Learning Specialization – Stanford University (Coursera) | Jan 2023
- Advanced Certification in Data Science – IIIT Bangalore | July 2022