Param Chordiya

+18586425947 | pchordiya@ucsd.edu | linkedin.com/in/paramchordiya | github.com/paramchordiya | paramchordiya.github.io

Education

University of California San Diego — San Diego, USA
Master of Science, Electrical & Computer Engineering (Machine Learning & Data Science) – GPA: 3.7/4 — September 2023 – March 2025

Pune University — Pune, India
Bachelor of Engineering, Electronics & Telecommunications with Honors in AI & ML – GPA: 3.96/4 — June 2019 – July 2023

Indian Institute of Technology Madras — Chennai, India
Bachelor of Science, Computer Science (Programming & Data Science) – GPA: 7.77/10 — January 2020 – May 2023

Skills

- **Programming Language:** Python, R, C++, C, Matlab, JavaScript, Java, PostgreSQL, SQLite, MongoDB
- **Frameworks:** PyTorch, TensorFlow, LangChain, Neural Networks, ML Optimization, AWS, Agile, Flask, REST, FastAPI, CUDA
- **Software Development:** SQL, NoSQL, CI/CD, Git, Google Cloud, AWS, Kubernetes, Docker, Delta Lake, MLflow
- **Machine Learning:** Knowledge Graphs, Natural Language Processing(NLP), Computer Vision, Classical ML, Reinforcement Learning, Large Language Models(LLMs), Deep Learning, Statistics, Data Processing, Classification, Detection, Segmentation, Gen AI

Work Experience

Machine Learning Engineer — April 2025 - Present
7 Eleven Inc. — Irving, USA
- Developing a personalized Upselling page, resulting in improved user experience and increased upsell conversion rates

Machine Learning Researcher — March 2024 - April 2025
UC San Diego Health — San Diego, USA
- Researched & Developed Agentic GraphRAG based protein interaction chatbot (ChatPLVis) improving BLEU score by **60%**
- Built an end-to-end pipeline with Flask backend, Gunicorn, and Docker for scalable and efficient deployment
- Built ML infrastructure and trained XGBoost to classify Enzymology protein database entries using open-source embeddings
- Implemented Diffusion Model pipelines, leveraging AlphaFold, to generate protein structures optimized for better ligand binding

Machine Learning Engineer — June 2024 - August 2024
7-Eleven Inc. — Irving, USA
- Redesigned 7-Eleven's search pipeline to GenAI Search using GTR-T5 embeddings, RAG, and FAISS, achieving an MRR of **0.4**
- Optimized recommendation system against existing search logs to boost the NDCG score from **0.16 to 0.3 (87.5% increase)**
- Trained Llama3 to classify maintenance records for stores leading to **savings of $30M** at classification accuracy of **96%**

Machine Learning Engineer — January 2023 – June 2023
Larsen & Toubro — Chennai, India
- Enhanced scene detection for optimizing power resources using custom YOLO V8 with PyTorch to an accuracy of **97.8%**
- Designed a video analysis system with partitioning features with OpenCV & Increased accuracy by **40%** over YoloV3
- Produced live time series graphs from SQLite data using NumPy, Matplotlib, & Pandas via Flask, with **100ms response time**

Machine Learning Researcher — June 2022 – June 2023
Pune Institute of Computer Technology — Pune, India
- Employed Computer Vision & Deep Neural Networks to create GANs for text to Indian Sign Language achieving a FID score of 3
- Achieved a convergence of Discriminator and Generator with a BCE Convergence loss of **0.124**
- Created open source dataset of 49 Indian Sign Language (Dynamic-ISL) words each with 1000 images with variations

Publications

- R. Sreemathy, **Param Chordiya**, Soumya Khurana, Mousami Turuk, *Sign Language Video Generation from Text Using Generative Adversarial Networks*, Optical Memory and Neural Networks, 2024, Vol. 33, No. 4, pp. 466–476. ©Allerton Press, Inc., 2024.
- Javier Espinoza-Herrera, María F. Manríquez-García, Sofía Medina-Bermejo, Ailyn López-Jasso, **Param Chordiya**, Dyllan Mead, Karry Shi, Adriana Siordia, Maeve O'Connor, Sarah M. Veskimägi, Nathaniel Roethler, Adrian Jinich, *The Protein Language Visualizer: Sequence Similarity Networks for the Era of Language Models*, bioRxiv

Personal Projects

PerceptiVIT: Vision Transformer | *Python, Vision Transformer, CI/CD, MLOps,* ***https://perceptivit.streamlit.app***
- Developed an end-to-end ML pipeline with modified vision transformer to identify real & fake images achieving an accuracy of **96%**
- Re-engineered patch embedding using a single convolutional operation, decreasing computational overhead with F1-score of **95.34%**
- Built a Streamlit app incorporating **MLOps** (unit testing, CI/CD) and model with **98.65% Precision, 92.25% Recall**

Achievements & Leadership

- **Academic Scholarship (Indian Institute of Technology Madras)**, Larsen & Turbo and Walmart
- **Ranked 6th** in Dept. of Electronics & Telecommunication, Pune University
- **3rd Prize**, HackRX 2.0, a Hackathon organized by Bajaj Finserv, Recommendation System
- **Google Developer Student Club** – Contributed as the ML Team member followed by ML team lead conducting 4 workshops