

PARAM CHORDIYA

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EDUCATION

University of California San Diego

Master of Science in Electrical & Computer Engineering (Machine Learning & Data Science)

San Diego, USA

September 2023 – December 2024

Savitribai Phule Pune University

Bachelor of Engineering in Electronics & Telecommunications with Honors in AI & ML – GPA: 3.96/4

Pune, India

June 2019 – July 2023

Indian Institute of Technology Madras

Bachelor of Science in Programming & Data Science (Hybrid Online Degree) – GPA: 7.77/10

Chennai, India

January 2020 – May 2023

SKILLS

- **Programming Language:** Python(Numpy, Pandas, Scikit-learn, SpaCy, OpenCV), C++, Matlab
- **Databases (SQL):** MySQL, SQLite, MongoDB, PostgreSQL, ETL, Excel
- **Frameworks:** Neural Networks, ML Optimization, PyTorch, TensorFlow, Keras, AWS, Agile, Flask, REST Framework
- **Other:** CUDA, Natural Language Processing, LangChain, Data Analytics, Statistics, Data Processing, Mathematics, Linux, Git

WORK EXPERIENCE

Machine Learning Engineer

7-Eleven Inc.

June 2024 - Present

Irving, USA

- Optimized LLM-based embeddings model, classifying maintenance records for stores leading to a saving of more than \$30M
- Revamped & productionized 7Rewards & 7Now app search on product datasets using GTR-T5 embeddings, Retrieval-Augmented Generation and FAISS for enhanced complex product searches.

Graduate Researcher

Jinich Lab - University of California San Diego

March 2024 - Present

San Diego, USA

- Research on Protein Language Models & Diffusion Models for protein synthesis under Dr. Adrian Jinich
- Developing Diffusion Models for generating protein structures for better binding with ligands

Graduate Researcher

Cosman Lab - University of California San Diego

January 2024 – Present

San Diego, USA

- Research in Dynamic 3D Mesh Compression under the guidance of Principal Investigator Prof. Pamela Cosman
- Composed machine learning-based computational metric for 3D meshes using Human Subjective Experiments.

Research Intern for Computer Vision, Deep Learning

January 2023 – June 2023

Larsen & Toubro Power Transmission & Distribution

Chennai, India

- Enhanced scene detection to an accuracy of 97.8% for optimizing power resources using custom **YOLO V8** with **PyTorch**
- Implemented 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

Deep Learning Research Intern

June 2022 – June 2023

Rajiv Gandhi Science & Technology Commission's Lab at Pune Institute of Computer Technology

Pune, India

- Employed **Computer Vision** & **Deep Neural Networks** to create **GANs** for text to Indian Sign Language with 0.3 FID score
- Achieved a satisfactory convergence of Discriminator and Generator with a BCE Convergence loss of around 1.24
- Created dataset of 49 Indian Sign Language (Dynamic-ISL) words each with 1000 images with variations

PERSONAL PROJECTS

Recommendation System | Python, SVD, Collaborative Filtering, MLP Regressor

- Built a Recommendation System for Finance Business using **Collaborative Filtering** to recommend financial products to the users
- Received 3rd Prize at Bajaj Finserv's Hack RX 2.0 hackathon in over 100 participating teams
- <https://github.com/ParamChordiya/Bajaj-Finserv-Hack-RX-2.0-2022.git>

Kidney Disease Detection | VGG16, VGG19, ResNet, MobileNet, Boosting Algorithms, Flask, Python, TensorFlow

- Achieved a Wooping 99.96% f1 score & 99.97% accuracy using **Ensemble Modelling** beating the existing publications
- Developed custom ensemble model combining pre-trained **CNN** for feature learning with a classification model on reduced features
- **Abstract** - <https://drive.google.com/file/d/1TNyKbqT65yNiFutbk0PD2etrb0zricMu/view>

LEADERSHIP

- **Department Academic Mentor** – Mentored 20 Jr. Year students by providing academic guidance & general counseling
- **Google Developer Student Club** – Contributed as the ML Team member followed by ML team lead conducting 4 workshops
- **Debate Society** – Worked as External Affairs Associate, Design Team Member & as the Associate, Internal Affairs Committee

ACHIEVEMENTS

- **Elite + Silver**, Introduction to Prog. in C - NPTEL in 2097 Participants– (March 2023)
- **Academic Scholarship (Indian Institute of Technology Madras)**, Larsen & Turbo – (April 2022)
- **Ranked 2nd**, Dept. of Electronics & Telecommunication, Pune Institute of Computer Technology, 2nd Year Engg. – (January 2022)
- **Academic Scholarship (Indian Institute of Technology Madras)**, Walmart – (September 2021)
- **3rd Prize**, HackRX 2.0 by Bajaj Finserv. – (July 2021)