Pratishtha Gaur

(619) 953-7604 | p1gaur@ucsd.edu | PratishthaGaur | pratishtha-gaur

Education

University of California - San Diego   *San Diego, USA*
M.S. in Data Science   *Sep 2023 - Apr 2025*
- President of Data Science Graduate Association
- CGPA: 4/4

Vellore Institute of Technology   *Vellore, India*
B.Tech. in Computer Science and Engineering   *Jul 2019 - May 2023*
- Graduated with a 3.98/4 CGPA.

Skills

Technical Skills	Python, NLP, Transformer Pretraining, LLM Finetuning, Tensorflow, PyTorch, C++, R, Pandas, Sklearn, NumPy, OpenCV, Git
Data Engineering	Relational Databases (SQL), NoSQL Databases (MongoDB, Google Firestore), Apache Kafka, PySpark
Development	Flutter, Flask, Selenium, PHP, REST API, HTML, CSS
Data Analysis	PowerBI, Data Visualization, EDA

Professional Experience

Adani Wilmar   *Ahmedabad, India*
Data Science Intern   *Dec 2022 - Jun 2023*
- Led the development of a recommender system that generates leads to increase sales reducing cost of labor by 50%.
- Leveraged Language model to analyze menu, food ingredients and orders to estimate SKUs and their required inventory.
- Increased Revenue Potential by recommending top 100 institutions by city with 5+ definitive SKU.
- Tools and Technique: NLP, LLM, EDA, Data Processing, Data Visualization, Flask, Flutter, Python, Communication

InfyU Labs   *Gandhinagar, India*
Machine Learning Intern   *May 2021 - Aug 2021*
- Built an ML model for segregating fruits based on defects, enhancing quality control and product standards.
- Utilized Detectron2 with custom dataset and trained on Mask R-CNN, for accurate object detection and defect identification.
- Oversaw on-site project operations, ensuring seamless coordination and efficient management of resources and tasks.
- Tools and Techniques: Object Detection, Image Processing, Unsupervised Learning, Data Collection, OpenCV

Projects

Tesla T4 GPU GEMM Optimization with CUDA
C++, CUDA
- Developed CUDA kernels in C++ for GEMM operations on Tesla T4 GPUs, achieving 78% of CuBLAS's peak performance.

Pretrained a transformer model for Classification.
PyTorch, Python, Transformer
- Pretrained a transformer encoder-only model using PyTorch for a text classification task, distinguishing texts from various individuals.

Patient Monitoring
LSTM, Kafka, S3
- Engineered a patient monitoring system for ICU settings, regularly assessing vital signs every hour to identify signs of Sepsis
- Coordinated real-time data streaming using Apache Kafka and set up storage and archiving of the analyzed results in an S3 bucket, enabling straightforward access and retrieval.

OCR Based Evaluation of Mathematical Assignment
OpenCV, Image Processing
- Developed an OCR-based application for automated evaluation of answer sheets.
- Performed workspace detection, detected and localised lines, segmented text as exponent, base and subscript.
- Achieved 97.1% accuracy on a dataset of 60,000 images of digits and symbols trained on Deep Columnar Convolutional Neural Network.

Publication

Intelligent Gym Trainer Supporting Pose Correction Using PoseNet and YoloV4 [Link]   *Chennai, India*
Presenter for International Conference on Computer Science and Artificial Intelligence (ICCSAI - 22)   *Oct 2022*
- Leveraged Object Detection technology to enhance workout effectiveness by ensuring proper body positioning during exercises.
- Trainer recommends exercises based on detected equipment detected in the live video.
- Detects features from human body using PoseNet and produces a real-time feedback on correctness of body posture for selected exercise.

Certification

2024	**Generative AI with Large Language Models,**	AWS, Deepelearning.AI
2022	**Machine Learning,**	Andrew NG