

Shaun Mendes

New York, NY | [\(551\) 260-5614](tel:(551)260-5614) | [linkedin.com/in/shaun-mendes](https://www.linkedin.com/in/shaun-mendes) | smendes2901@gmail.com

TECHNICAL SKILLS

Languages: Python, R, Java, Scala, C++, C, Bash, Javascript, HTML, CSS, SQL, Prompt Engineering

Machine Learning & Deep Learning: Pandas, NumPy, PyTorch, TensorFlow, Keras, JAX, PyTorch Lightning, CNN, RNN, LSTM, Hugging Face, Scikit-learn, PySpark, A/B Testing, Data Mining, Data Analytics

Cloud & Deployment: AWS, Azure, GCP, Flask, FastAPI, Streamlit, React, Linux, MySQL, Postgres; NoSQL – Redis, Cassandra, Elasticsearch; VectorDBs: LlamaIndex, FAISS; Docker, Kubernetes, MLflow, Kubeflow, AirFlow, Jenkins, Git, SDLC, Gitlab CI/CD

PROFESSIONAL EXPERIENCE

HERE Technologies (Chicago, IL) | *Data Scientist (Internship) - Place Creation*

May 2024 – August 2024

- Led a successful Proof of Concept (POC) to assess the effectiveness and interpretability of **prompt engineered** versus **fine-tuned** Large Language Models (LLMs) in extracting multilingual geospatial data to enhance the extraction efficiency of place attributes from text.
- Accelerated timelines for feature engineering, training, and testing of ML and DL models by 60% by streamlining routine processes and integrating Natural Language Processing (NLP) LLMs such as **Llama3**, **Gemini** and **OpenChat**

HERE Technologies (Mumbai, India) | *Senior Data Scientist - Place Creation*

April 2021 – August 2023

- Expanded HERE Maps **global coverage by 17%** by leveraging web-crawled data to generate over **10 million high-quality place records**. Utilized ML/DL algorithms to extract key place attributes, including name, category, address, and hours of operation.
- Identified place websites with an accuracy of 92.5% by creating labeled data using heuristics and unsupervised models (**K-Means**, **DBSCAN**) for clustering. This data was employed to train ensemble of supervised models (**Random Forest**, **SVM**) for classification.
- Extracted street addresses, place names and hours of operation from 9 countries by finetuning foundational models such as **T5** and **DeBERTa** on **Named Entity Recognition (NER)** and **Semantic Re-Ranking** achieving an overall accuracy of 94.3% .
- Enhanced classification of places across 400+ categories in 6 languages by adapting **Transformer(BERT, DeBERTa, XLNet)** models to unique regional nuances and improving classification metrics by **7%** over previous benchmarks.
- Achieved **25x cost reduction** in generating GPS data by building scalable MLOps pipeline on **AWS**, using optimized CPU / GPU cloud instances and model compression techniques such as ONNX, Quantization and Knowledge Distillation.
- Improved model development by implementing distributed training on multinode **Nvidia HPC DGX A100** GPU cluster and automated **MLOps pipeline** deployment with **GitLab CI/CD**, Docker, and AWS CloudFormation/SAM.

Fractal Analytics (Mumbai, India) | *Machine Learning Engineer - AI@Scale*

August 2017 – April 2021

- Detected fraud activity in client's critical products saving over \$200K annually by developing scalable Extract Transform Load (ETL) solution for processing terabytes of clickstream data with **PySpark** deployed on AWS EMR, utilizing Jenkins and Oozie.
- Optimized end-to-end data audit, dashboarding and product mapping processes for client sales data by engineering heuristic and machine learning models, reducing team size by 50% and **optimizing delivery timelines by 60%**.
- Expedited Consumer Packaged Goods (CPGs) client acquisition by parallelizing the training of gradient boosting regression models (**XGBoost** and **LightGBM**) for demand forecasting, **reducing turnaround time by 75%**.

OPEN-SOURCE PROJECTS

- Developed a **GPT-4o/Llama3** multi-modal chat bot using Langchain and Ollama with Retrieval Augmented Generation (RAG) to provide personalized food recommendations and resolve customer complaints with a strong focus on Responsible AI.[[code](#)]
- Worked on a robust Generative AI **hybrid recommendation** and question-answering pipeline by fine-tuning Llama-2 with QLoRA, RLHF and using a Mixture of Experts (MoE) approach alongside Retrieval Augmented Generation (RAGs). [[code](#)]
- Modeled a **collaborative filtering-based** recommender systems for personalized Instacart recommendations, comparing performance with TF-IDF, Singular Value Decomposition(SVD), and Bayesian Personalized Ranking(BPR) methods. [[code](#)]
- Designed computer vision (CV) **image classification** models categorizing indoor scenes (8 classes) utilizing **transfer learning** on Resnet-101 and SE-Resnet-50 models with multi-label and multi-scale training for indoor scene understanding.

EDUCATION

Stevens Institute Of Technology

Master of Science in Machine Learning, GPA: 4.0/4.0

Sep 2023 - Dec 2024

Hoboken, New Jersey

Mumbai University

Bachelor of Science in Electronics and Telecommunications Engineering

Jul 2013 - Jun 2017

Mumbai, India