Shaun Porwal

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Experience

Standard Model Biomedicine — Philadelphia, PA

Founding Engineer — May 2025 to March 2026

- Built full-stack agent orchestration platform with FastAPI + WebSocket backend and Next.js frontend for interactive chat, dataset/model management, training monitoring, inference, and DICOM/NIfTI image viewing with segmentation/overlay support; implemented agent tooling with LangGraph and OpenAI Agents Python SDK
- Built a research library and CLI suite for MEDS-to-model pipelines: CT embedding extraction, survival model training (Cox partial likelihood loss, C-index, survival/MLP heads), and inference with pre-trained Hugging Face weights for aortic aneurysm and heart failure risk prediction
- Built LLM benchmarking framework for clinical trial matching across direct LLM inference and embedding-based classifiers (logistic regression/MLP/transformer heads) using EHRSHOT; automatic threshold tuning (F-beta/Youden's J), k-fold CV, per-class reporting (F1/AUC/confusion matrices)

Memorial Sloan Kettering Cancer Center — New York, NY

Machine Learning Engineer — March 2021 to May 2025

- Built and maintain dcurves Python package for Decision Curve Analysis, including its docs site at decisioncurveanalysis.org
- Developed AI radiology tool with Llama 3.1:70B, trained SAM image segmentation models, and built RShiny dashboard for radiologist review
- Led statistical analyses for a landmark study on post-chemotherapy RPLND policies in testicular cancer, applying GAM, logistic regression, Kaplan-Meier, CoxPH, and DCA to inform surgeon decisions
- Engineered Llama3.1:70B + RAG text-to-SQL pipeline (no-more-sql) using Streamlit and FAISS

Education

Icahn School of Medicine at Mount Sinai
Master's in Biomedical Data Science — March 2021

Rutgers University - New Brunswick
Bachelor's in Biomedical Engineering, Chinese — May 2019

Languages

English ●●●●●

Mandarin Chinese ●●●●●

Hindi ●●●●●

Japanese ●●●○○

Spanish ●●●○○