Xiaofeng "Finn" Guo

Phd Applicant

Durham 27707 | (+1)919-282-2240 | xg101@duke.edu

Education

2024-Present, Durham, NC, USA

Duke University - *Master of Science Student, Electrical and Computer Engineering*

- Specify area：Machine Learning
- Major courses: Deep Learning, Computational bioinformatics, High-dimensional Statistics

2020-2024, Tianjin, China

Nankai University - *Bachelor of Management (Information System)*

- Major courses: Operation Research, Statistics,Python , Data Structure, Game Theory

Research Experience

2024.10-Present, Durham NC, USA

PatchLensDx : Pathologist-AI Collaborative Whole Slide Image Analysis System

- Developed PatchLens: an interpretable AI-assisted pathology system combining CLAM-based segmentation, foundation model based feature extraction, VAE-based anomaly detection, for patch-level analysis and diagnostic annotation and reasoning on Gastro-intestinal WSIs.
- Advisor: Dr. Jichun Xie from Duke University https://scholars.duke.edu/person/jichun.xie

2025.6-Present, Durham NC, USA

A multimodal foundation model of cardiac disease for diagnostic reasoning

- Developed a clinical foundation model learning a shared latent space between ECG, Echo, CT, and EHRs to quantify diagnostic uncertainty and information gain across modalities for real-world clinical decision support.Work builds toward a multimodal foundation model for interpretable clinical reasoning and decision support.
- Advisor: Dr.Ricardo Henao https://scholar.google.com/citations?user=p_mm4-YAAAAJ&hl=en

2023.1-2023.6, Beijing, China

Automated Test System for New Energy Vehicle - *Undergrad Research Assistant*

- Automated Vehicle Test System:Developed Qt-Python front-end for NEV testing at Tsinghua University, enabling real-time data exchange with VeriStand to improve testing efficiency and usability.
- Advisor: Dr. Zhenhua Jin https://www.svm.tsinghua.edu.cn/essay/74/1841.html

2025.7-2025.10 Durham, NC, USA

Counting Clinical Clues: A Lightweight Probabilistic Baseline Can Match an LLM

- Developed the Frequency-Based Diagnostic Ranker (FBDR), a lightweight probabilistic baseline using Naive Bayes for medical question answering that could match the same performance with LLMs like OLMo-7B. The paper was accepted by ML4H(2025) on Oct 10th.

2025.2-2026.5 Durham, NC, USA

Transfer GAN:Fine-Tuning PGGAN for High-Resolution Chest X-Ray Synthesis

- Finetuned pretrained PGGAN for domain-adapted chest X-ray synthesis via selective layer transfer,enabling reproducible and efficient image augmentation for medical AI.
- https://github.com/liwilliam127/transfer_PGGAN

Work Experience

2025.5-present, Berkeley, CA (remote)

Scam AI - Machine learning engineer

- Trained and fine-tuned deepfake detection models as part of ScamAI's defense team. Worked with self-blended models and MoE architectures to improve detection accuracy

2023.6-2023.10, Beijing, China

Ubiquant(Beijing) - System Product Manager

- Spearheaded the design and implementation of Ubiquant's OA and BPM systems, overseeing the entire lifecycle from conceptualization to migration.

Skills

- PyTorch,; CV: CLAM , VAE, GAN; NLP, LLM; Software Engineering:Flask/FastAPI,React