James Fang

Email | Linkedin | Github | Personal Page

Education

UIUC Computer Science

Master's Degree Aug 2024 – May 2025

- Related Coursework: Advanced Algorithms, Machine Learning for Bioinformatics, Machine Learning for Signals, Social Spaces, Introduction to Bioinformatics — **GPA: 3.93**

Bachelor's Degree *Aug 2021 – May 2023*

- Related Coursework: Algorithms & Models of Computation, Data Structures, Database Systems, Machine Learning, Natural Language Processing, Intelligent Agents, Distributed Information Systems — **GPA: 4.0**

Technical Skills

Languages: Python, JS/TypeScript, Java, C, C++, HTML/CSS (Bootstrap), SQL, Linux Shell
Libraries & Frameworks: React, NextJS, Git/Github, OpenAI/GPT, OpenCV, Pytorch, AWS, Kubernetes, Docker, MongoDB, SQL, Flask
Skills: Generative AI, Prompt Engineering, Fullstack Development, Deep Learning, Machine Learning, Computer Vision, Natural Language Processing

Experience

Rx Jot Oct 2023 – Feb 2025

Software Engineer

- Architected and implemented a system to use large language models (LLMs) to provide medical documentation and appeal letters in oncology prior authorization
- Processed more than $4 million in oncology prior authorizations
- Built tools that reduced the time to process for insurance to process oncology authorization requests by half and reduced denial rates by two thirds
- Launched and maintained the Rx Jot frontend application for users and built the entire backend API to handle requests to generate documentation
- Worked with governmental regulations such as HIPAA and implemented stringent data security practices
- Configured the database to handle the volume of data made by healthcare providers for constant real-time access
- Worked on data science and analytics to extract insights to optimize the prior authorization documentation pipeline to further reduce insurance denials
- Added integration with resources such as NCCN guidelines, PubMed research, FDA indications, ICD & CPT/HCPCS coding
- Engineered LLM prompts to model behavior and eliminated hallucination points of failure
- Validated with users and customers to reduce 95% of user friction and input times by 80%

AbbVie Aug 2023 – Oct 2023

Data Science Intern, Pharmacology/Toxicology Team

- Developed deep learning, computer vision workflows for 24/7, real-time behavioral monitoring of experimental rats

UIUC CS Department Aug 2023 – Oct 2023

CS374 Teaching Assistant

- Developed course material for students
- Held office hours
- Graded homeworks and exams

Caesar Laboratory Feb 2022 – Aug 2022

Undergrad Computer Vision Researcher

- Developed novel deep learning pig brain segmentation models to facilitate easier animal brain health research, such as automated measurement of brain volume with 3D segmentation
- Designed U-Net segmentation models and optimized (with superconvergence training & parallelization) to increase segmentation accuracy to 94.2% while cutting training time by 75%