EDUCATION

University of Chicago Expected June 2025

BA in Data Science & Statistics | 3.6 GPA

Related Courses: Statistical Theory and Methods; Mathematical Methods in the Physical Sciences; Data Engineering; Data Visualization and Communication; Applied Regression Analysis; Machine Learning and Large-Scale Data Analysis + assorted Machine Learning courses; Machine Learning @ Stanford Online (Coursera)

Planned 2024 Courses: Big Data; Graduate level Machine Learning courses @ Toyota Technological Institute

RESEARCH & WORK EXPERIENCE

Student Researcher | Fermi National Accelerator Laboratory w/ UChicago Data Science Clinic September 2024 – Present

- Utilize Python to develop and improve latent diffusion models for high quality particle physics simulations
- Train, improve, and analyze results from conditional U-Net based autoencoder to efficiently and effectively compress particle data

Internal Audit Data Analyst Tech Intern | JPMorgan Chase

Summer 2024

- Assisted multiple internal audit reviews, performed data cleaning and rigorous analysis of new to bank customers
- Developed and implemented new agile auditing tracker to be used throughout tech team
- Utilized Meta's Llama model to develop investment risk assessment chat bot in Python revolving around current news articles (JPMC Hackathon 3rd place, Silicon Valley branch)
- Completed a case study w/ several interns involving JPMC's AI tools

Statistical Analysis Research Intern | University of Chicago Biological Sciences Division

Mar 2023 - Present

- Perform statistical correlation analysis using R and Python, manuscript in progress for research paper
- Attended 68th Biophysical Society Annual Meeting in Feb 2024 w/ Dr. Esmael Haddadian (University of Chicago) & Dr. Jack Douglas (NIST), Undergraduate Poster Competition Semifinalist
- Develop protein models in explicit TIP4P/2005 water solvent using Molecular Dynamics on Unix Midway supercomputer
- Analyze the degree and intensity of modulation on protein dynamics with respect to its surrounding solvent, focusing on specific regions to quantify the impact of water on specific structural features of a protein using Tcl

Social Network Analysis/ML/NLP Intern | WORLDIE - Social Media for Good

June – Sep 2022

- Develop social media scraping programs to analyze posts, comments, tweets, etc. for signs of potential domestic violence
- Develop court file analysis program utilizing NLP, OCR, and STT models to extract all date-time instances of evidence used in court case and create a timeline from extracted evidence
- Scrape and analyze RedHeart Database containing data of ~2,500 victims of domestic violence in Australia

CLUBS

ERG (UChicago Environmental Research Group): Data Analysis Branch Head

Sep 2022 - Present

- Lead Data Analysis branch (20+ members) to brainstorm potential research and analysis pathways
- Design and teach basic data science Python skills to new members
- Utilize Python and Chicago Transit Authority API to analyze transportation pollution, infrastructure and econometrics, design live bus and train tracking application
- Analyzed lead traces in Chicago's water and its relation to public health quality, crime rates, employment, etc. using government databases

UChicago Robotics Club: Programming Branch Lead

Sep 2022 - 2024

- Help lead programming branch of club: brainstorm, design, and develop software aspect of robot, teach new members

PROJECTS

KiwiClient: https://github.com/TangyKiwi/KiwiClient

Dec 2020 - Present

 Personal hobby project, Java based Minecraft hacked client / utility mod, explores vulnerable exploits within the Minecraft client and server code utilizing network packet manipulation, entirely self started and self taught project

Other: Multiple data analysis / machine learning projects for assorted courses using SkLearn, NLTK, NLP, decision trees, vector machines, soft / hard voting; utilized Python and R to analyze health survey data to exploring relationships between metabolic disorders, diabetes, and Alzheimer's and Jakob-Creutzfeldt disease

SKILLS

Python, Java, R, C++; Git, SQL, Django; Unix / Linux Fluent in Chinese & Spanish