Emily Tong

Data Science Student @ UChicago

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EXPERIENCE

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Data Engineering & Al Intern / Health Account

June 2023 — Present

Booz Allen Hamilton

Bethesda, MD

- Led the full-stack development of "PUF-Bot", an AI assistant capable of answering natural language questions about CMS Public Use Files, empowering a wider audience to tap into big data through an intuitive approach to data analytics
- Independently created an initial proof of concept for the chatbot, prompting the team to move from low-code development in Azure/PowerApps to full-stack development with Langchain/Streamlit
- Selected to create a demo video of "PUF-Bot", presented to and praised by the director of the technology group (MITG) at CMS
- Built and managed a private data enclave within Microsoft Azure for the "PUF-Bot" Web App

Data Science Intern / Innovation Team

June 2022 — Sept 2022

Katten Muchin Rosenman LLP

Chicago, IL

Built upon an existing lexicon (rule) flagger to cut down runtime by 50%

- Accurately filtered and extracted data from sets of semi-unstructured pdfs
- Created an original "Legal Data Science" Package with easy-to-use functions designed for users with little exposure to data science to independently conduct interactive data analysis
- Categorized time entries using regular expressions and produced data visualizations used for internal analysis
- Delivered a custom-request file search tool that walks through directories and sub-directories to find files matching a certain pattern, allowing attorneys to find documents more efficiently than manually searching through Windows File Explorer

Data Science Intern

June 2021 — July 2021

Artisan Data Consulting

Washington DC

- Analyzed nonprofit fundraising data using Python in Google Colab
- Produced report data on donor retention that was incorporated in final client deliverables and presentations

Course Grader & Teaching Assistant

Sept 2022 - Present

The University of Chicago

Chicago, IL

- Wrote test cases, debugged student code to identify mistakes, and provided personalized feedback for over 45 coding and free-response assignments each week
- Coordinated with other course staff to establish a fair grading system, relaying common assignment and exam mistakes to professors for incorporation into future lectures and courses
- Answered questions on Ed Discussion and held weekly office hours and lab sessions on Jupyter, Pandas, NumPy, Matplotlib, and statistical concepts / fundamental data structures and Object-Oriented Programming concepts

EDUCATION

The University of Chicago

Sept 2021 — Expected June 2025

Bachelor of Arts in Data Science, Minor in Statistics

Chicago, IL

- Dean's List 2021-2022 & 2022-2023; Robert Maynard Hutchins Scholar; GPA: 3.95/4.0
- Presented my interactive data portal on UN Security Council Data as a lens to view global conflict, "UN for us", at the 2023 Winter Tech Showcase

PROJECTS

"Reversi4u" Reversi Bot

- Independently created a "random", "smart", and "very-smart" bot (n-step look ahead game tree search) to play Reversi
- · Collaborated on bot-TUI integration, quality assurance testing, and overall Reversi game logic with three teammates
- Standardized and enhanced group code quality using GitHub Actions workflow to run pylint

"Betting on Certainty" ML Project

- Researched the applications of machine learning models for sports betting arbitrage
- With Premier League soccer data, jointly developed Logistic Regression and Neural Networks models to predict arbitrage opportunities

TECHNICAL SKILLS

- · Languages Python, R, HTML, CSS, SQL, JavaScript
- Libraries Pandas, NumPy, scikit-learn, nltk, langchain, regex, ipywidgets, Transformers, seaborn, Matplotlib, streamlit, plotly, altair, tmap, folium, Tidyverse
- Technologies JupyterLab, Git, RStudio, PowerBI, Django, Azure, PowerApps