John Melling

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github.com/Melling444 | https://jjmelling.dev

EDUCATION

M.St. **University of Oxford** | Oxford, UK | Oriental Institute — July 2022

M.A. **University of Chicago** | Chicago, IL | Department of Humanities — June 2021

B.A. **St. Olaf College** | Northfield, MN | Department of Classics — September 2017

WORK EXPERIENCE

Pirate Transport | Remote — June 2025 – Present
Software Consultant

- Building a cross-platform React Native app to manage drivers, dispatch jobs, and streamline trucking operations
- Developing a Flask backend API with Firebase for user data/auth and AWS S3 for document storage
- Implementing order-driver matching functionality using TF-IDF vectorization and cosine similarity
- Designing a full admin infrastructure with real-time access to driver profiles, documents, timesheets, and dispatch status

University of Chicago Booth School of Business | Chicago, IL — August 2022 – Present
Academic and Research Specialist

- Developing a text mining function in Python to extract and efficiently scrape over 6 million entries in ProQuest database for faculty research
- Supports a group of 8 faculty with research, academic, and administrative tasks
- Oversees expenditures for current research projects

Dr Mattia Bertazzini
Research Consultant | Chicago, IL — March 2024 – May 2025
Research Assistant | Oxford, UK — January 2022 – June 2022

- Curated list of 100+ economic and political terms in Stata to filter for relevant cuneiform texts on the CDLI (Cuneiform Digital Library Initiative) database
- Extracted and cleaned a database of over 360,000 records to be analyzed with Python
- Provided regular progress updates and expert opinion to the principal investigator
- Cited and acknowledged in the final publication "The Economic Origins of Government"

PROJECTS

Movie Recommendation System

Make recommendations based on the similarity score of movies that they enjoy in a full-stack web application

- Implemented a web scraper using the selenium package in Python to scrape movie data from the Rotten Tomatoes website and update a database that is stored in an S3 bucket
- Developed a recommendation system with the database using a cosine similarity matrix to identify strong relationships between keywords, cast, staff, and genres, and recommend a list of similar films
- Designed and containerized a full-stack web application using Flask (Python) for the backend and Node.js with Express for the front end to provide a user interface for the recommendation system

SKILLS AND INTERESTS

Programming Languages & Tools: Python, R, JS, SQL, MS Excel, AWS, Docker, Firebase, Expo
Data Analysis & Visualization: Pandas, NumPy, SciPy, matplotlib, seaborn
Machine Learning: scikit-learn, Keras / TensorFlow (CNN classification, deep neural networks)
Interests: World Travel, Animals (not just the cute ones), Traditional Archery