CHANTERIA MILNER

github.com/chanteriam | chanteriam.github.io | linkedin.com/in/chanteria-milner

PROFESSIONAL EXPERIENCE

U.S. Census Bureau | Reveal Global Consulting

Software Engineer July 2024 — Present

- Took ownership of a project after team turnover, managing full-stack development, data engineering, and server operations while collaborating with stakeholders to address application errors and prioritize feature development.
- Enhanced data quality by deploying a machine learning model that resolves gaps and inconsistencies in datasets.
- Developed lexical and semantic enterprise search engines using pre-trained LLMs, BM25 algorithms, and RAG.
- Improved accessibility to Census supply chain data by building Django RESTful APIs for use in a visualization application.
- Decreased manual data correction time by over 90% by developing a batch correction application.
- Refactored a legacy application into Angular, improving performance, scalability, and usability.
- Enhanced application resilience and maintainability by containerizing deployment processes using Docker.

Data Scientist Intern November 2023 — May 2024

- Increased survey processing speed by 75% through the engineering of a full-stack survey processing application using Angular and Django.
- Advanced application security with JSON Web Tokens and SSO integration for robust authentication protocols.
- Optimized AWS server configurations by automating CI/CD pipelines using Jenkins and implementing IaC with Ansible.
- United new applications with legacy systems using Agile methodologies, ensuring compatibility and smooth transitions.
- Streamline application adoption and onboarding by authoring well-documented code with clear docstrings and producing in-depth user and developer guides.

Coding it Forward, Civic Digital Fellowship

Data Engineering Fellow, U.S. Census Bureau June 2023 — November 2023

- Enabled advanced policy analysis by consolidating 40+ years of imperfect data into a unified SQLite database.
- Reduced manual data preprocessing and cleaning workload by 80% through the creation of a Flask application.
- Eliminated manual federal finance and employment data collection efforts through the implementation of advanced web scraping algorithms.

PROJECTS

NLP-Based Climate Research Article Summarization (https://github.com/ehabich/climate-conversations)

- Designed and implemented an NLP summarization pipeline leveraging transformer-based models and LSTMs.
- Hosted the complete tool and documentation on GitHub to facilitate open-source research collaborations.

United States Healthcare Legislation Content Analysis (https://github.com/chanteriam/abortion-legislation-analysis)

- Designed a Python-based NLP framework to analyze shifts in legal discourse related to healthcare legislation, employing clustering and topic modeling algorithms.
- Developed a robust dataset through automated data extraction and preprocessing using regex and NLTK.

Data Privacy, Surveillance, and Access to Healthcare (https://tinyurl.com/2mhsdum9)

- Conducted an in-depth analysis of healthcare-related data privacy concerns, focusing on the misuse of consumer data by AI-driven surveillance technologies.
- Proposed systemic reforms for data brokers, emphasizing AI regulation and privacy policy advancements.

EDUCATION

The University of Chicago | Chicago, IL **June 2024**

Master of Science in Computational Analysis and Public Policy | Honors

Relevant Coursework: Advanced Machine Learning, Computational Content Analysis, Big Data and Cloud Computing, Hierarchical Linear Models, Inferential Statistics, Database Management Systems, Object-Oriented Programming, Software Development for Civic Technology

Vanderbilt University | Nashville, TN **May 2022**

Bachelor of Arts in Sociology (Highest Honors) | Minor: Computer Science | Summa Cum Laude

SKILLS

AI/ML & NLP: Pytorch, TensorFlow, Scikit-Learn, HuggingFace, Spacy, NLTK, Chromadb, LangChain, OpenAI, RAG
Data & Cloud Engineering: ETL Pipelines, PostgreSQL, MySQL, Flask, Django**;** Cloud Platform, AWS (S3, EC2, RDS)
Programming & Version Control: Python, SQL, R, JavaScript, TypeScript, C++, Java, Bash; Docker, Kubernetes, Git, GitHub