EMMA CHAU

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EXPERIENCE

Children's Hospital of Philadelphia (CHOP)   **Summer 2024**
Data Analyst | Department of Surgery   Philadelphia, PA

- Developed Morbidity and Mortality (M&M) dashboard in Tableau to track patient safety and healthcare quality metrics
- Underwent HIPAA training and onboarding for sensitive patient data-handling
- Collaborated with clinical and research professionals to discover attendings' desired metrics to measure
- Attended daily meetings with mentors to address data challenges and refine dashboard components
- Wrote and optimized complex SQL queries using DBeaver to extract granular surgical data based on surgeon requirements
- Utilized Common Table Expressions (CTEs) to organize and process data efficiently
- Ensured accuracy through spot-checking using medical record numbers and EPIC patient management system
- Solved technical challenges related to data access limitations and database migration, including handling deprecated keys and missing data by creatively designing alternative data aggregation techniques
- Analyzed trends in post-surgical outcomes to understand and identify factors affecting patient care
- Employed version control tools (GitHub) to maintain clean, well-documented scripts with consistent commenting for team usability

University of Pittsburgh | Office of Innovation and Entrepreneurship   **May 2023 - April 2024**
Clerical Assistant   Pittsburgh, PA

- Classified >1 year worth of backlog patent email correspondence by identification numbers
- Processed over 100 boxes of original patents and files to be transferred offsite to Access (file/record management service)
- Documented offsite files in organized Excel spreadsheets
- Monitored and assigned forms in database to ensure most recent and accurate information was displayed

University of Pittsburgh Medical Center (UPMC)   **October 2022 - April 2023**
Student Worker | Department of Ophthalmology   Pittsburgh, PA

- Tabulated data of research patient surveys in Excel efficiently
- Expedited preparations for speakers
- Systematized computer documentation of lab devices
- Organized and documented waste chemicals
- Compiled boxes for the moving of the department and fulfilled deliveries

PROJECTS

Simple Shell in C
- Handles redirection, programs with arbitrary number of arguments, and returns termination signals

SokoMips
- Implemented a rendition of the game Sokoban, a game where the player must push boxes onto targets
- Written in assembly language using Mars (MIPS Assembler and Runtime Simulator)
- Allows for player wrap-around, displays move count, elements collide with each other

Personal Website
- Created alongside web development class as a personal project to showcase design portfolio
- Utilizes HTML, CSS, Javascript
- Still in progress, best displayed on computer screen

What is the best neighborhood in Pittsburgh?
- Data analysis group project using Jupyter Notebooks and Python focusing on "healthiness" as the main metric
- Utilizes pandas and matplotlib to organize datasets and visualize data
- Pulls data from the Western Pennsylvania Regional Data Center website
- Measures submetrics: number of COVID-19 vaccinations, ratio of asthma healthcare use, and number of indoor air act exemptions

EDUCATION

University of Pittsburgh   **May 2025**
Frederick Honors College and School of Computing and Information   Pittsburgh, PA
Bachelor of Science; Major in Computer Science
Minor in Studio Arts, Related Area in Psychology
  - 3.4 GPA
  - Fall 2024 Best Capstone Speaker 2nd Place Winner

SKILLS

- **Technical Skill**s: SQL, Tableau, Java, HTML, CSS, Javascript, C, Python, Adobe Creative Cloud
- **Soft Skills**: punctual, adaptable to any task, valuable listening skills, willingness to understand tasks, close attention to detail