

EMMA CHAU

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EXPERIENCE

Children's Hospital of Philadelphia (CHOP) Data Analyst Department of Surgery	Summer 2024 Philadelphia, PA
<ul style="list-style-type: none">Developed Morbidity and Mortality (M&M) dashboard in Tableau tracking patient safety and healthcare quality metricsUnderwent HIPAA training and onboarding for sensitive patient data-handlingCollaborated with clinical and research professionals to discover attendings' desired metrics to measureAttended daily meetings with mentors to address data challenges and refine dashboard componentsWrote and optimized complex SQL queries using DBBeaver to extract granular surgical data based on surgeon requirementsUtilized Common Table Expressions (CTEs) to organize and process data efficientlyEnsured accuracy through spot-checking through medical record numbers and the EPIC patient management systemSolved technical challenges related to data access limitations and database migration, including handling deprecated keys and missing data by creatively designing alternative data aggregation techniquesAnalyzed trends in post-surgical outcomes to understand and identify factors affecting patient careEmployed version control tools (GitHub) to maintain clean, well-documented scripts with consistent commenting for team usability	
University of Pittsburgh Office of Innovation and Entrepreneurship Clerical Assistant	May 2023 - April 2024 Pittsburgh, PA
<ul style="list-style-type: none">Classified >1 year worth of backlog patent email correspondence by identification numbersProcessed over 100 boxes of original patents and files to be transferred offsite to Access (file/record management service)Documented offsite files in organized Excel spreadsheetsMonitored and assigned forms in database to ensure most recent and accurate information was displayed	
University of Pittsburgh Medical Center (UPMC) Student Worker Department of Ophthalmology	October 2022 - April 2023 Pittsburgh, PA
<ul style="list-style-type: none">Tabulated data of research patient surveys in Excel efficientlyExpedited preparations for speakersSystematized computer documentation of lab devicesOrganized and documented waste chemicalsCompiled 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 Frederick Honors College and School of Computing and Information Bachelor of Science; Major in Computer Science Minor in Studio Arts, Related Area in Psychology	May 2025 Pittsburgh, PA
<ul style="list-style-type: none">3.4 GPAFall 2024 Best Capstone Speaker 2nd Place Winner	

SKILLS

- Technical Skills:** 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