

Joanne Tsai

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EDUCATION

Carnegie Mellon University

2020 – 2024

B.S. in Information Systems

Minors: Human-Computer Interaction
& Business Analytics and Optimization
GPA 3.8, Dean's List with High Honors

RELEVANT COURSEWORK

Principles of Imperative Computation
Application Design & Development
Enterprise Web App Development
Programming Usable Interfaces
Foundations of SW Engineering
Fundamentals of CS & Programming

TOOLS & TECHNOLOGIES

Languages

HTML/CSS, JavaScript, Python, PHP,
C/C++, Java, Ruby, Ruby on Rails,
REST API

Libraries & Frameworks

JQuery, React, AngularJS, NodeJS,
Bootstrap, MVC, JSON

Design

Figma, Adobe XD, Canva

Databases

SQL, MySQL, MongoDB

SKILLS

Responsive Web Development
Wireframing & Rapid Prototyping
User Experience Design
Information Architecture
Usability Testing
User Stories
Agile & Scrum Methodologies
Web Analytics
Data Visualization

EXPERIENCE

Teaching Assistant (Database Design & Development)

Carnegie Mellon University

Aug 2022 – Present

Teach ~20 students about database design, SQL, and MongoDB queries through weekly labs. Mentor 6 teams through database projects on refining user stories, revising relational models and functional dependencies, and debugging PostgreSQL queries. Hold weekly office hours.

STEP (Student Training in Engineering Program) Intern

Google

May – Aug 2022

Refactored code to optimize developer tool used by Google Nest cameras. Designed implementation process flow and integrated an open source library API in C++. Conducted software device testing and wrote unit and mock tests.

Research Assistant

CMU Human-Computer Interaction Institute

Jan – May 2022

Migrated, visualized, and analyzed 5 user data tables with 1M+ records using AWS, MySQL, BigQuery, and Stata. Collaborated with 7 Cups to measure impact of online therapy platforms on mental health outcomes using machine learning algorithms.

PROJECTS

Teedy Document Management System

Sep – Oct 2022

Learned the codebase of an open source software Teedy and identified absent features. Collaboratively programmed 2 feature additions across front-end user experience, middleware data transmission, and back-end service using Angular.js, REST API, and Java. Built CI/CD pipeline with GitHub Actions to manage and automate team workflow.

Great Pittsburgh Baking Outlet

Feb – May 2022

Analyzed business goals of a baking outlet and prototyped dashboard UI on web metrics. Created user stories for three roles (administrator, customer, shipper) and developed a relational database. Developed an e-commerce web application from scratch using the Model-View-Controller framework with Ruby on Rails and implemented full-coverage testing.

HealthConnect: Online Appointment Scheduler

Feb – Apr 2022

Conceptualized initial design with user research and prototyped 3 iterations using Figma based on usability testing feedback. Built an interactive web application using HTML, CSS, and JavaScript and implemented appointment scheduling features.

LEADERSHIP & ACTIVITIES

Lead Mentor

CMU Women in Information Systems

Aug 2022 – Present

Hold bi-weekly general body meetings to organize social events and career panels for ~60 members. Provide academic advice and guidance on professional goals to 2 aspiring underclassmen.

UI/UX Designer, Software Developer

CMU Business Technology Group

Feb 2022 – Present

Lead the UI/UX design portion of a web development project BuddyConnect where upperclassmen can input coursework to show underclassmen their academic path in Fall 2022. Integrated database and built front-end interface for CMU Course Evaluations using MongoDB, Node.js, and React in Spring 2022.