Mengpang Xing

Mengpang's Portfolio (mythventor.github.io)

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Education

Northwestern University   Evanston, IL
Bachelor of Arts in Computer Science   *Sep 2023 – Anticipated June 2027*
- Courses: Fundamental of Computer Programming, Data Structure and Algorithms, Intro to Computer System

Experience

Y STEM and Chess Inc   Boise, ID
Full-stack developer internship   *Jun 2024 – Sept 2024*
- Collaborated with the design team to create responsive, user-friendly web interfaces for our educational chess platform, ensuring accessibility and a seamless user experience for a **diverse user base of 500+ students**
- Built and optimized interactive features using TypeScript with React to enhance the learning experience of students in chess and STEM subjects, resulting in **25% increased engagement**
- Conducted thorough testing and debugging to ensure web applications function flawlessly across **5+ different browsers** and devices, resolving **15+ compatibility issues**

University of Illinois Chicago   Chicago, IL
STEM Scholar Internship & After-school program   *Nov 2022 – Aug 2023*
- Collaborated with students from **over 20+ high schools** in a STEM-Focused program, addressing challenges in engineering, architecture, and sustainable development
- Engineered a Rube Goldberg machine with **12+ mechanical components**, demonstrating proficiency in physics and mechanical engineering principles
- Designed a community solar microgrid model capable of powering **5 model homes**, exploring sustainable energy practices and electrical engineering applications

Pui Tak Center   Chicago, IL
Coding Fun Apprenticeship   *Jan 2023 – June 2023*
- Mastered computer science fundamentals through **200+ hours** of instruction, specializing in web development with HTML, CSS, and JavaScript
- Completed **8 intensive hands-on projects**, simulating real-world scenarios to bolster problem-solving capabilities and strengthen teamwork skills
- Created functional, user-friendly web applications using responsive design and CSS animation, earning recognition as **top 3 student developer**

Projects

RubricXpert | *React, Flask, OpenAI API, Python, JavaScript*   Mar 2025
- Developed an AI-powered essay analysis tool that evaluates student essays based on uploaded rubrics, processing **50+ criteria** simultaneously using engineered parallel processing system with **10 concurrent workers**
- Built React frontend with TypeAnimation and **Lucide icons** for interactive results display
- Implemented a Flask backend with OpenAI integration to extract structured criteria from rubrics and provide detailed evaluations
- Created an interactive chat component allowing students to ask follow-up questions in real-time

Snake Game in DrRacket | *DrRacket, Functional Programming*   Nov 2023
- Developed snake game logic using functional programming, efficient data structures, and responsive gameplay
- Integrated scoring, obstacle handling, collision detection, and difficulty levels

Mather High School Chess Website | *React, HTML, CSS, JavaScript*   June 2023
- Created an educational chess website featuring interactive React components for **30+** students in my high school
- Curated engaging multimedia content, attracting **250+** monthly visits

Skills & Activities

Programming Languages: C, C++, HTML, CSS, JavaScript, Python, DrRacket
Frameworks & Tools: React, Flask, Git, OpenAI API, TypeScript, RESTful APIs, Tailwind CSS
Activities: President of High School Chess Club, Volunteer in Evanston Public Library