

# **Hangning ZHOU**

Full-Stack Software Engineer

Portfolio: www.hangningzhou.com | Github: https://github.com/hnzhou16

## Summary

Full-Stack Software Engineer with strong skills in problem-solving, debugging, and systems thinking. Leveraging a background in architectural design and computational methods, I bring a creative yet analytical approach to software development. Experienced in building efficient, scalable, and user-centered applications across the stack using modern frameworks and cloud technologies. Known for sharp troubleshooting, adaptability, and a collaborative mindset, I thrive in agile environments and focus on delivering impactful solutions.

#### **Skills**

**Frontend Development:** Next.js, React, JavaScript, TypeScript, Redux, HTML, CSS, Tailwind CSS **Backend Development:** Go, Node.js, Express.js, Python, Java, C++, TypeORM, REST API

**Database:** MongoDB, MySQL, SQLite

Cloud & Tools: AWS S3, GitHub, Postman, Agile, Scrum, SDLC

UI/UX Design: Figma, Adobe Suite, Prototyping, User Research, Responsive Design

#### **Project Experience**

Software Engineer (Self-Directed Projects)

# **CoCraft – AI-Powered Home Design Platform**

01/2025 -07/2025

Next.js, React, TypeScript, Redux Toolkit, TailwindCSS, Go, MongoDB, AWS S3, OpenAI API, JWT, HTTP-only cookies

#### Live Site | Frontend | Backend

- Built a live social platform enabling homeowners, designers, and contractors can post, comment, follow and share their home projects.
- Integrated OpenAI API for AI-generated design visuals and AWS S3 for secure image storage.
- Developed role-based authentication with HTTP-only cookies, personalized feeds, and advanced filtering/sorting.
- Designed a **responsive UI** with dark/light mode for consistent cross-device experiences.

### **Hugzest – Smarter Shopping with AI**

03/2024 -12/2024

Node.js, React, TypeScript, Redux, CSS, Express.js, SQLite, TypeORM, OpenAI API, PayPal API, Google Maps API, JWT Live Site | Frontend | Backend

- Developed a modern e-commerce application with advanced product filtering, persistent cart management, and secure PayPal checkout.
- Added address autocomplete with Google Maps API and persistent cart state across user sessions.
- Implemented AI-powered product recommendations using OpenAI API to enhance shopping experience.
- Designed interactive image galleries with real-time color swatch selections.

#### **Professional Experience**

Computational Design & Architecture

# Technical Designer, Gensler, Seattle, WA

05/2019 - Present

- Developed **parametric design systems** using Rhino + Grasshopper and Revit + Dynamo to generate adaptive building forms, facades, and spatial configurations.
- · Built custom scripts in Python and Dynamo to automate BIM workflows, reducing documentation time and increasing accuracy.
- Created data visualizations and simulation tools (Ladybug, ClimateStudio) to support design decisions using real-world environmental inputs.
- Collaborated cross-functionally with architects, engineers, and developers to deliver technically robust, visually compelling designs.

## Junior Designer, Fernando Romero Enterprise, New York, NY

08/2017 - 02/2019

- · Produced computational design models and high-fidelity 3D visuals for large-scale architectural projects.
- Contributed to digital prototyping and design iteration using parametric tools and visualization platforms.

#### **Education**

Master of Architecture, University of Michigan, Ann Arbor

08/2015 - 04/2017

Bachelor of Architecture, Xiamen University, China

09/2010 - 06/2015

**Additional Training,** CS Coursework

07/2022 - 10/2023

Data Structures & Algorithms, UC Berkeley Extension

Completed 150+ LeetCode problems, with focus on algorithmic efficiency and problem-solving.