

# Yunhan Huang

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No sponsorship required, and willing to relocate

## Education

### Purdue University

*M.S. in Computer Science*

*B.S. in Computer Science*

West Lafayette, IN

Graduated Aug 2024

Graduated Dec 2023

## Skills

- **Programing Languages:** JavaScript, TypeScript, Java, Python, Golang, C/C++, SQL
- **Tools & Frameworks:** ReactJS, NextJS, MySQL, Spring Boot, ExpressJS, NodeJS, Git, Linux

## Experience

### Software Developer – PUTREE

Feb 2023 – May 2024

*Yingjie Victor Chen Computer Graphics Lab, Purdue University Polytechnic Institute*

- Engineered PUTREE, a forest simulation software, using **Unreal Engine** with **C++** to generate high-quality image datasets for machine learning models in forest analysis, **improved model precision by 3.7%**.
- Transformed manual workflows into **automated data processing** with **Python** and **OpenCV**, boosting dataset generation capacity from 200 to **1,500 images per day**.
- Streamlined development with **Git** and **Agile**, delivering **customized dataset** tailored to the different labs.

### Web Application Developer – Protein Universe

Aug 2021 – Dec 2022

*Kihara Bio-informatics Lab, Purdue University*

- Conceptualized and designed a 2D/3D data visualization web app with **ThreeJS**, simplifying protein analysis and reducing research query time.
- Automated image generation and retrieval with **NodeJS** and **PHP**, enhancing visualization efficiency.
- Optimized web performance with **cuML** and lazy-loading techniques, achieving a **5x speed improvement**.

### Teaching Assistant

Aug 2022 – May 2023

*Purdue University*

- Instructed **over 150 students** in Purdue University CS 240 - Programming in **C**; CS 252 - System Programming **over 120+ hours in lab sessions**.
- Troubleshooted and resolved **300+ student support tickets**, offering guidance for technical concepts.

## Projects

### Visual Heap

An interactive heap memory visualization and analysis web application

- Designed a memory allocation retrieval system in **C (Linux)** to analyze caching and multithreaded allocation.
- Built interactive visualizations with **ReactJS**, enhancing user comprehension of complex memory structures and receiving **positive feedback from over 90% of users**.
- Constructed a scalable backend with **ExpressJS**, improving performance and supporting simultaneous usage.

### SleepMedic

A React based daily routine and sleep tracking app

- Steered front-end development and acted as **Scrum Master** for a team of **five**, driving **Agile** practices.
- Engineered a responsive single-page application using **ReactJS** and the **MUI** component library.
- Architected a robust backend with **Spring Boot**, integrating **MySQL** for efficient data management and utilizing **Axios** and **RESTful APIs** to enable seamless client-server communication.

## Certifications

- [Google IT Support Professional Certificate](#), Google, Jan 2024
- [Programming with Google Go Specialization](#), UCI, Sep 2024