

# 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

- **Strong Areas:** Software development, Front-end Development, Data Structure and Algorithm
- **Tech Stack:** JavaScript, Java, MySQL, C/C++, Python, Golang, ReactJS, Linux

## Experience

### Software Developer – PUTREE

Feb 2023 – May 2024

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

- Developed PUTREE, a forest simulation software, using **Unreal Engine** with **C++** to generate high-quality image datasets for machine learning models in forest analysis, **increased model precision by 3.7%**.
- Implemented data processing automation using **OpenCV** in **Python**.
- Utilized **Git** for version. Practiced **Agile** development cycle with constant update and issue fixation.

### Web Application Developer – Protein Universe

Aug 2021 – Dec 2022

*Kihara Bio-informatics Lab, Purdue University*

- Developed an interactive data visualization web application using **ThreeJS** in 2D and 3D environment.
- Utilized **NodeJS** and **PHP** to interface with a server-side PyMOL application, enabling the generation and retrieval of image data for client-end.
- Employed **cuML** library to perform **t-SNE** and **UMAP** dimensionality reduction operations on large-scale data, optimized client-end performance by lazy-loading using **KNN** data grouping.

### Teaching Assistant

Aug 2022 – May 2023

*Purdue University*

- Purdue University CS 240 - Programming in C; CS 252 - System Programming.
- Created guide questions and tutorials to navigate complex programming challenges in **C/C++**.
- Taken **over 300+ tickets from students over 2 semesters** offering guidance for technical concepts.

## Projects

### Visual Heap

An interactive heap memory visualization and analysis web application

- Implemented memory allocation information retrieval with **C** in **Linux** environment. Analyze the impact of memory caching and multiple-threaded allocation.
- Utilizing **ReactJS** to create interactive visualizations.
- Incorporating **ExpressJS** for backend development, enhancing the application's performance and scalability.

### SleepMedic

A React based daily routine and sleep tracking app

- Led a **team of five** in front-end development.
- Leveraged the **ReactJS** framework and **MUI** component library to create a single-page web application.
- Utilized **Springboot** for backend development, integrated **MySQL** for efficient data management, creating a robust Java application and dynamic data request from client.

## Certifications

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