# Hanson Li

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## EDUCATION:

**Washington University in St. Louis** *Aug 2022 - May 2025*
*B.S. in Computer Science & Economics* *St Louis, MO*
*Relevant Coursework:* Data Structures and Algorithms, OOP, Intro to Artificial Intelligence, Intro to Machine Learning, Statistics, Matrix Algebra, Calculus III, Discrete Math.

## TECHNICAL SKILLS:

*Languages:* C++, Java, JavaScript, HTML/CSS, Python, PHP, R, Bash

*Technologies:* Keras, Node.js, MongoDB, MySQL, AWS-EC2, Scikit-learn, Linux, OpenCV, Mediapipe

*Frameworks:* TensorFlow, PyTorch, Express.js, Flask, Django

## WORK EXPERIENCE:

**Computational Imaging Group, Washington University** *Feb 2024 - Present*
*Undergraduate Research Assistant* *St. Louis, MO*
- Working with a Ph.D. student, learning about the application of neural networks in image-denoising tasks.
- Building, training, and evaluating image-denoising models implementing the U-Net architecture.

**Washington University Computer Science Department** *Jan 2023 - Present*
*Primary Teaching Assistant for CSE 240: Logic and Discrete Mathematics* *St. Louis, MO*
- Hosted weekly office hours and graded homework and exams for a class of ~100 students.
- Facilitated in-class quizzes and helped the instructor answer questions during lectures.

**Quality Assurance Department, Jireh Semiconductor** *June 2021 - July 2021*
*Database Management Intern* *Portland, Oregon*
- Created wafer defects databases in Excel with 70+ entries for data analysis and training.
- Wrote VBA scripts to automate database operations in Excel.
- Checked database for inconsistencies and searched for missing data across directories.

## PROJECTS:

**Lightweight CNN for Playing Cards Classification** | Python, Pytorch *Spring 2024*
- Designed and built a CNN to perform categorical classification on playing cards.
- Model architecture focused on fast training speed. Achieved 91% accuracy.
- Project page: https://smallchungus1.github.io/mlProjPages/playingCardProj.html.

**Binary Classification for Forest Fire Images** | Python, Keras, TensorFlow, Flask *Winter 2024*
- Built a binary classification CNN implementing the VGG16 architecture that predicts if the given image depicts a forest fire or not. Achieved 90% accuracy. Packaged into a web app allowing predictions with image URLs.
- Project page: https://smallchungus1.github.io/mlProjPages/forestFireProj.html.

**Virtual Gym |** Flask, HTML/CSS, OpenCV, Mediapipe, MongoDB, Heroku *Fall 2023*
- A computer vision web app that detects pose landmarks and counts how many sets of workouts a user has done with OpenCV and Mediapipe. Deployed at: https://virtual-workout-955f643f91f5.herokuapp.com/.

**Game Review** | Django, HTML/CSS, MongoDB, Heroku *Fall 2023*
- Created a game review website implementing CRUD operations for games and user reviews
- Deployed at: https://gamereviewcentral-baed019d01e9.herokuapp.com/.