

Nigel Fang

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<https://nigelfang.github.io>

EDUCATION: California State Polytechnic University Pomona
Bachelor of Science in Computer Science
GPA 3.45/4.0 Expected graduation date: May 2023

Yonsei University, Seoul Korea
Study Abroad for Fall 2022

RELEVANT COURSES:

- Data Structures
- Design and Analysis of Algorithms
- Linear Algebra
- Deep Learning
- Software Engineering
- Data Mining
- Object Oriented Programming C++/Java
- Python for Programmers
- Computer Vision

PROJECTS:

CPP Enrollment System Program

Team Member

- Worked in a group of 5 programmers to mimic the enrollment system at Cal Poly Pomona for unit testing
- Created a layer class to allow data to be transferred from a local database to the GUI
- Written in Python, SQLite, JSON

Weightlifting

Creator

- Desktop application that takes user inputs and calculates the target goal for strength in Olympic Weightlifting based on Russian Standards from the 1960s
- Uses SQL for database storage, JavaSwing for UI management, and built with Gradle
- Written in Java and SQL

PPG Neural Network

Creator

- Deep Learning project that takes PPG readings from datasets and camera footage and trains a RNN model to predict data
- Uses PyTorch libraries to build the model, however hyperparameters and layers were set and created by hand
- Manages to obtain above 98% validation rate on the test set and above 90% on live demonstrations
- Written in Python and Matlab

Picture Stitching

Creator

- Takes two images, computes the homography given at least 8 pairs of coordinates and stitches the pictures together
- Built from scratch, but uses ideas from Seong Jae Hwang
- Written in Matlab

Interactable Task List

Creator

- Multi column lists that allow user to drag and drop tasks in between columns and save positions
- Uses ReactJS framework and PostgreSQL for data management
- Written in JavaScript, Typescript, HTML, CSS, SQL

WORK EXPERIENCE:

Freelance Web Developer

June 2020 - Present

- Experience in building custom business and e-commerce websites using HTML, CSS, and JavaScript
- Delivered high-quality, user-friendly, and visually appealing websites that meet clients' specific needs and requirements.
- Experience and understanding of optimizing website performance, security, and user experience.
- Excellent communication and project management skills, able to work effectively with clients to understand their goals and provide timely and effect solutions.

TECHNICAL / NON-TECHNICAL SKILLS:

- Intermediate in Mandarin
- Elementary in Japanese and Korean
- Java, Python, C++, C, MATLAB, SQL, HTML/CSS
- Git, Linux, Gradle

HOBBIES / INTERESTS:

- Keyboard building
- Rock Climbing
- Olympic Weightlifting
- Video games