

Nigel Fang

Los Angeles Area

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EDUCATION:

California State Polytechnic University Pomona

Bachelor of Science in Computer Science, Graduation date: May 2023

Yonsei University, Seoul Korea

Study Abroad for Fall 2022

RELEVANT COURSES:

- Data Structures
 - Design and Analysis of Algorithms
 - Data Mining
 - Deep Learning
 - Software Engineering
 - Computer Vision
 - Object Oriented Programming C++/Java
 - Web Development and Application
 - Big Data Analytics and Cloud Computing
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WORK EXPERIENCE:

Freelance Full Stack Web Developer | HTML, CSS, JavaScript, PHP

June 2020 – Present

- Optimized backend server configuration and improved responsiveness reducing operation costs by 1400%.
 - Optimized website performance by compressing image loading which improved load times by 40%
 - Optimized security by implementing Google Captcha API which reduced spam emails by 95%
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PROJECTS:

CPP Enrollment System Program | Python, MySQL, PostgreSQL, XAMPP

- Mimicked the enrollment system at Cal Poly Pomona and saved individual users to local database
- Developed the data pipeline that transferred information from the local database to the GUI using Java with Postgres and MySQL connections to allow access to the local database
- Practiced Agile methodology using Git, DrawIO, Balsamiq, and Astah to create a functional system

Weightlifting Desktop Application | Java, SQLite

- Desktop application that takes user inputs and calculates the target goal for strength in Olympic Weightlifting
- Created the front end GUI using JavaSwing for event management to run back end functions
- Database storage was handled by SQLite for lightweight embedded management

Photoplethysmography Neural Network | Python, MATLAB

- Deep Learning project that takes PPG readings from datasets or camera footage and predicts future readings
- Uses PyTorch libraries to build the model, however hyperparameters and layers were set and created by hand
- Scores above 98% validation rate on the test set and above 90% on live demonstrations

Picture Stitching | MATLAB

- Takes two images, computes the homography given at least 8 pairs of coordinates and stitches the pictures together
- Uses key point recognition and computes the projective transformation and applies a warping filter to the images

Interactable Task List | JavaScript, React.JS, HTML, CSS, PostgreSQL

- Allows users to move tasks between different stages of task management
 - Created the front end GUI using React and utilized the react-draggable library to implement the drag and drop elements.
 - Database storage was handled by PostgreSQL to save tasks and unique users
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TECHNICAL SKILLS:

- Java, Python, C++, C, MATLAB, SQL, HTML/CSS, Git, React
- Full Stack, CI/CD, Linux, Agile, Scrum, Gradle, SQLite, MySQL, XAMPP