Nigel Fang

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EDUCATION

California State Polytechnic University Pomona   Pomona, CA
Bachelor of Science, Computer Science，GPA: 3.48   May 2023
- **Notable Courses**: Deep Learning, Computer Vision, Big Data Analytics and Cloud Computing, Data Mining

Student Athlete, Bronco Lifting   2022-Current
Esports Player, Cal Poly Pomona LoL Team   2020-2022

EXPERIENCE

Full-Stack Web Developer, Freelance | June 2022 – Present
- Created custom website for user incorporating company logo and usable message system.
- Improved responsiveness and reduced operation costs by optimizing server host configuration
- Optimized website performance by compressing image loading which improved load times by 40%
- Improved security by implementing Google Captcha API which reduced spam emails by 95%

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 as the solutions to the backend implementation problem
- Designed unit tests and developed for each pipeline function to allow for smooth integration
- Practiced Agile development methodology using Git, DrawIO, Balsamiq, and Astah to create a functional system and mimic Software Engineering practices

Weightlifting Desktop Application | Java, SQLite
- Desktop application that takes user inputs and calculates the target goal for strength in Olympic Weightlifting
- Coded the front end GUI using JavaSwing for event management to run back end functions
- Developed the back end database storage to be handled by SQLite using JDBC for lightweight management problems

Photoplethysmography Neural Network | Python, MATLAB
- Deep Learning project that takes PPG readings from datasets or camera footage and predicts future readings
- Uses PyTorch and OpenCV to build the model and datasets, however hyperparameters and layers were calculated and solved by hand
- Software and testing was researched and monitored through real time data sets over many iterations
- 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

TECHNICAL SKILLS

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