SCOTT WONG, CSWP, EIT

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PROJECT EXPERIENCE

Photoelectric Sensor Hood for Gate Opening Mechanism

December 2023 - January 2024

Personal Project – implementing SolidWorks and 3D printing

Los Gatos, CA

- Designed a Photoelectric Sensor Hood using SolidWorks, reducing false-positive interference with infrared beam and shielding the sensor from elements.
- Conducted design reviews with client to gather feedback to tailor a solution to meet their specific needs and requirements, resulting in a 98% overall satisfaction rate.
- Implemented 3D printing technology to produce functional prototypes, allowing for hands-on testing and validation of design concepts and iterations.

Whiteboard Drawing Robot

August 2023 - October 2023

Personal Project – implementing Mechatronics

San Jose, CA

- Programmed an Arduino Nano 33 IoT microcontroller using MATLAB to control a robot to extract line traces from an image and reproduce the image as a drawing on a whiteboard.
- Calibrated a PID controller to synchronize two DC motors' velocity and position, enhancing robot movement and accuracy of motors from 25% to 80%.

WORK HISTORY

Personal Trainer

July 2013 - Present

Training the Wong Way

Campbell, CA

- Improved client performance by 25% over 6 months through personalized fitness programs and progress tracking.
- Employed biomechanical principles to reduce the risk of client injuries to less than 0.3% over the course of 10+ years, demonstrating a strong understanding of engineering concepts applied to human movement.
- Managed all aspects of a self-employed personal training business, including client acquisition, scheduling, and bookkeeping, resulting in an 18% annual revenue growth.

Mechanical Engineering Intern

July 2013 – October 2013

Pragmatic Professional Engineers

San Jose, CA

- Optimized drawing templates for efficiency, decreasing preparation time by 15% and improving productivity.
- Contributed to a HVAC system design project that achieved compliance with industry standards and codes, reducing the risk of legal penalties and enhancing the company's reputation.

VOLUNTEER EXPERIENCE

Student Mentor

October 2018 – December 2022

iMentor

San Jose, CA

- Collaborated with team members to develop mentoring and leadership strategies to improve high school graduation rate for mentored students from 76% to 83%.
- Established a strong support network for mentees, leading to a 94% mentee retention rate in the program.

EDUCATION

Bachelor of Science in Mechanical Engineering

May 2009

San Jose State University

San Jose, CA

CERTIFICATIONS

• Geometric Dimensioning and Tolerancing (GD&T) Certification (in progress)

Expected: July 2024

Certified SolidWorks Professional (CSWP) – Mechanical Design

August 2023

Certified Sustainable Design Associate (CSWA-SD) – Sustainability

May 2023

• Engineer-in-Training (EIT) – California

July 2009

TECHNICAL SKILLS

• 3D Printing, SolidWorks, AutoCAD, Pro-E/PTC Creo, MATLAB, Simulink, C, C++, Python, MS Office, Windows, Linux