Ty Schultz

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EDUCATION

University of California, Berkeley — August 2022 - December 2024
B.S. Mechanical Engineering — GPA 3.62

WORK EXPERIENCE

Genius Traffic System Company Limited — May 2023 - July 2023
Research and Development Intern — Bangkok, Thailand

- Engineered cost-effective PCBs for traffic lights, surge protectors, and CPU testers using Altium Designer, achieving an 80% reduction in manufacturing expenses through in-house production
- Led rapid prototyping, testing, and iteration of PCBs with hands-on soldering and electrical diagnostics to accelerate product development
- Collaborated with a multicultural engineering team to modernize legacy traffic systems and integrate international standards

Siam Nara Thai Cuisine — March 2019 - July 2022
Server — San Diego, CA

- Oversaw quality control from the kitchen to the dining table by organizing supplies and cycling through inventory as required by the California Food Handler Card Law
- Served as a liaison between Thai-speaking staff and English-speaking customers, facilitating clear communication
- Onboarded and trained new employees on service protocols and effective customer communication to enhance team efficiency

PROJECTS

Manufacturing and Design Communication, UC Berkeley — January 2023 - May 2023
Portable Laptop Stand

- Designed and fabricated an ergonomic, collapsible laptop stand optimized for portability, adjustability, and compatibility with multiple smart devices
- Refined 3D models using SOLIDWORKS, integrating a cross-link mechanism for seamless foldability
- Oversaw precision fabrication using university waterjet and 3D printers, ensuring high dimensional accuracy

Introduction to Product Development, UC Berkeley — January 2023 - May 2023
Koinator, Automated Koi Fish Feeder

- Created a temperature-sensitive koi fish feeder using SOLIDWORKS, integrating a thermocouple to prevent overfeeding in cold temperatures
- Led end-to-end design and fabrication of customizable panels using laser cutting and 3D printing techniques
- Programmed an automated system in Python that allows user control over feeding schedules, food volume, and temperature parameters

Transfer Pre-Engineering Program (T-PREP), UC Berkeley — July 2022- August 2022
FreeBrake, Skateboard Braking System

- Developed and prototyped an emergency braking system for electric skateboards through stakeholder-engaged research at the Jacobs Institute
- Delivered functional prototypes under strict deadlines, placing 2nd out of 32 teams in a university-judged product pitch competition with faculty and industry professionals

SKILLS

- **Software**: SOLIDWORKS, Creo, Altium Designer, MATLAB, COMSOL, AutoCAD, MS Excel
- **Fabrication**: 3D Printing, Laser Cutting, Lathe, Mill
- **Languages**: English (fluent), Thai (fluent), Japanese (conversational)