DAVID LEE

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EDUCATION

Seattle Pacific University
Bachelor of Science in Electrical Engineering, Background in Biology
Dean's List 2022-2024
Deffenbaugh Electrical Engineering Scholarship; Faith for Future Merit Scholarship
Relevant Course Projects: Multilevel Voltage Regulator PCB, Bandpass Sallen Key Filter Breadboard, Power Conversion Systems PCB Design (AC/DC, Buck-Boost, Fly-Back)

WORK EXPERIENCE

Research and Development Engineer Intern — **Seattle, WA**
Seattle Pacific University — June 2025 - Present

- Developed a wearable hydration–temperature system integrating multi-sensor hardware (~5% accuracy), microcontroller firmware, and wireless data visualization (OLED + web dashboard) to measure sweat rate and support locomotion energetics research.
- Developed airflow-based sweat-rate measurement, optimizing sensor placement, sampling region, and skin–sensor distance.

Anatomy & Physiology Lab Teaching Assistant — **Seattle, WA**
Seattle Pacific University — July 2024 - Present

- Instructed students during lab & office hours and prepared the lab before every lab session.

Certified Behavior Technician — **Seattle, WA**
Engage ABA — Fall 2022 - 2024

- Collected data, set goals, and helped clients with ASD navigate through social and behavioral interactions.

Resident Advisor — **Seattle, WA**
Seattle Pacific University — Summer 2025-Spring 2026

- Mentored and supported 30+ residents, fostering community, resolving conflicts, and organizing events to promote student engagement and well-being.

RELEVANT PROJECTS

Muscle Signal-Responsive Hand Prosthesis — February - June 2025

- Designed a responsive 5-DOF prosthetic hand by integrating a sensor-driven embedded control system that translated muscle activity into precise motorized movement, achieving ~90% motion recognition accuracy, 90 ms response latency, and <5% control error across 20+ test trials.

Baja Sae Team — Fall 2023 - Spring 2024

- Tested drivetrain efficiency (~30%) and CVT thermal performance using Arduino sensors while supporting vehicle assembly and maintenance.

Human Energetics & Kinematics Research and Presentation — Summer - Fall 2024

- Presented original research at Murdock Conference on human load-carrying energetics after conducting experiments, statistical analysis, and literature review

SKILLS

- Data Analysis and Statistical Modeling (MATLAB & RSTUDIO)
- Circuit and simulation (Multisim, Altium, LTSpice)
- CAD and prototyping (SolidWorks, 3D printing)
- Programming C++, Assembly, MicroPython
- Breadboard Design & Oscilloscope Operation
- Lab Prep and Research
- Embedded Control System