

Darren Biskup

EDUCATION

University of Illinois, Urbana-Champaign

B.S. Mechanical Engineering, Minor in Computer Science

GPA:3.86

May 2023

- James Scholar Honors Program
- American Society of Mechanical Engineers

EXPERIENCE

Lucid Motors

MAY 2021 - AUGUST 2021

Mechanical Engineering Intern, High Voltage Battery

- Worked as part of the High Voltage Battery Team and produced an innovative design for the high voltage chain that reduced the number of bolts required to join busbars by 50% per battery pack
- Design change saves company upwards of \$375,000 in raw material costs, and upwards of \$700,000 in labor costs (per 7000 units)
- Devised an improved method of measuring resistance of busbar joints that increased accuracy by over 50% at low voltages.
- Planned, conducted, and interpreted stress tests on bolted busbar joints to analyze how joint design performs at EOL
- Collected and analyzed data on heat generation, and used this data to calculate theoretical horsepower and efficiency loss of specific joints
- Presented weekly on findings to the High Voltage Battery Team and made a final presentation to the director of the Lucid Motors Battery department

Eco Illini Supermileage

JAN 2021- PRESENT

Battery Subteam Lead

- Spring 2021: Worked with the Mechanical Subteam to harness the battery pack of the G5E electric vehicle securely to the firewall.
- Fall 2021: As Battery Subteam Lead, I will be leading a full redesign of the battery pack to compete in the upcoming Shell Eco-marathon.

Assistant Tennis Coach, Los Altos Recreation Center

JULY 2018 - MARCH 2020

- Taught beginner tennis lessons to a class of 8-12 students with Coach Francois Chan.

SKILLS

Computer Programming: Proficient in Java, Kotlin, and Python. Self-taught HTML and CSS

Computer Aided Design: Autodesk Fusion360, Solidworks

Languages: Mandarin (fluent), Japanese (intermediate)

RELEVANT COURSEWORK

- Computer Science I (Kotlin), Physics Mechanics/E&M, Electric/Electronic Circuits, Differential Equations, Linear Algebra with Computational Application, Statics, Design for Manufacturability, Dynamics, Thermodynamics

PROJECTS

Magic Hanger

- Devised a unique clothes hanger which assists people with disabilities at the Georgia Tech Industrial Design Summer program 2018. Constructed working polyurethane foam prototypes and also created CAD models using Fusion360.

Subwoofer Restoration

- Used power tools to grind and replace a pair of worn subwoofer cones, then used tuning software to attach the precise amount of mass to the speaker cones to resonate with the passive radiator.