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Darren Biskup

EDUCATION

University of Illinois, Urbana-Champaign   GPA: 3.91/4.00
B.S. Mechanical Engineering, Minor in Computer Science   *May 2023*
- *James Scholar Honors Program*
- *American Society of Mechanical Engineers*

EXPERIENCE

Lucid Motors   MAY 2021 - AUGUST 2021
Mechanical Engineering Intern, High Voltage
- Worked as a member of the High Voltage Battery Team and produced an improved design for the high voltage chain reducing the number of bolts required to join busbars by 50% per battery pack
- Devised an improved method of measuring resistance of busbar joints that is up to 50% more accurate than a low ohmmeter.
- 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 am leading a full redesign of the battery pack to compete in the upcoming Shell Eco-marathon. Latest design decreases pack size by 50% while sharply increasing volumetric energy density by 33%. The pack also saw a decrease in weight by 25% attributable to the switch from 18650 Li-on cells to 21700s

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: Java, Kotlin, and Python. Self-taught HTML and CSS
Computer Aided Design: Autodesk Fusion360, Solidworks
Languages: Mandarin (fluent), Japanese (intermediate)
Other Skills: Classical Piano (CM Panel State Honor), Chinese Calligraphy, Violin (ABRSM grade 8), Homestead Symphony Orchestra Piano accompanist

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.