📲 408- 680-7370 📧 biskup2@illinois.edu 🌎 www.darrenbiskup.com

Darren Biskup

EDUCATION

University of Illinois, Urbana-Champaign GPA: 3.93/4.00

B.S. Mechanical Engineering, Computer Science Minor *May 2024*

- *James Scholar Honors Program, Dean's List*
- *American Society of Mechanical Engineers*

EXPERIENCE

Skydio MAY 2022 - AUGUST 2022

Product Design Engineering Intern

- Design for Injection Molding: Utilized CATIA 3DEXPERIENCE to redesign the Navigation Camera mounting mechanism for the company's next generation performance drone.
- Communicated with overseas vendors in China to implement design change, ensuring injection moldability and minimal lead time.
- Kicked off $18,000+ in injection mold retooling cost for redesigned Proto2 Navigation Cameras.
- Designed and prototyped the mobile tablet adapter for the next generation drone controller using FDM and SLS 3D-Printing. Received DFM feedback from injection molding vendor.
- Worked with Manufacturing Engineers to design and prototype optimal wire routing layout for drone electronics. Prototyped wire clips and wire guides for injection molding and ordered ~$6,000 worth of these parts from the injection molding vendor.

Lucid Motors MAY 2021 - AUGUST 2021

Mechanical Engineering Intern, High Voltage

- Battery Pack Development: Improved on design for the high voltage chain reducing the number of bolts required to join busbars by 50% per battery pack.
- Devised a method of measuring resistance of busbar joints up to 50% more accurate than the HIOKI 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 from bolted busbars joints, and used this data to calculate theoretical horsepower and efficiency loss of specific joints.

Eco Illini Supermileage JAN 2021- PRESENT

Battery Subteam Lead

- Redesigned the battery pack to compete in the upcoming Shell Eco-marathon. Design decreases pack size by 50% while 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.
- Worked across multiple subteams to design and waterjet a carbon fiber Nomex firewall separating the driver's cockpit and dangerous powertrain components.

RELEVANT COURSEWORK

- Statics, Dynamics, Solid Mechanics, Fluid Dynamics, Dynamics of Mechanical Systems, Thermodynamics, Mechanical Design, Design for Manufacturability, Differential Equations, Linear Algebra with Computational Application, Algorithms and Data Structures, Physics Mechanics/E&M, Electric/Electronic Circuits

PROJECTS

Magic Hanger

- Devised a unique clothes hanger which is designed to assist people with disabilities. 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 a tuning software to attach the precise amount of mass to the speaker cones to resonate with the passive radiator.

SKILLS

Computer Programming: C++, Java, Kotlin, and Python. Self-taught HTML and CSS
Computer Aided Design: CATIA 3DEXPERIENCE, Autodesk Fusion360, Solidworks
Languages: Mandarin (fluent), Japanese (intermediate)
Other Skills: Classical Piano (CM Panel State Honor), Chinese Calligraphy, Symphony Orchestra Piano accompanist