Geoffrey Ding

650.740.0669 | gding@berkeley.edu

EDUCATION

University of California, Berkeley December 2020
Mechanical Engineering, B.S. GPA: 4.00/4.00
Electrical Engineering and Computer Sciences, B.S.

Relevant coursework: Solid Mechanics, Dynamic Systems and Feedback, MEMS (Microelectromechanical Systems), Structure and Interpretation of Computer Programs, Data Structures, Programming for Scientists and Engineers, Designing Information Devices and Systems

EXPERIENCE

CalSol (UC Berkeley Solar Vehicle Team) Sept 2016–Present
Battery Engineer

- Designed battery modules and pack layout, increasing energy density by 200% over previous vehicle.
- Analyzed various battery placements for dynamics, visibility, cooling, and maintainability.
- Integrated electrical and mechanical subsystems to reduce weight and minimize resistive losses, including mounting and routing strategies.
- Wrote MATLAB scripts and developed spreadsheets to calculate mechanical parameters including center of gravity, dynamic weight transfer, and brake rotor requirements.
- Programmed voltage and current sensing on low-voltage power distribution board and indicator lights on lights controller and dashboard, interfacing via SPI and CAN respectively.

Stretchable Electronics (Lin Lab) May 2017–Present
Undergraduate Researcher

- Developed linear motion system to test stretchable electronics for use in skin-mounted devices
- Automated repetitive tension and compression tests with the Arduino microcontroller
- Identified and characterized batteries and sensors for use in soft electronics.

SolarBear (Engineers for a Sustainable World) Sept 2016–Present
Project Lead

- Led construction of a solar charging station for student use.
- Designed electrical system architecture.
- Headed 5-member 3D modeling subteam and taught SolidWorks.

PROJECTS

SIXT33N, a voice-controlled car with closed-loop state-feedback control Fall 2017

BearMaps, a path finder using A* and quadtrees with trie-based autocompletion Spring 2017

Databases, a SQL-like relational database management system Spring 2017

Scheme Interpreter, an interpreter for Scheme, a functional programming language Fall 2016

SKILLS

Programming (Java, Python, MATLAB), computer-aided design (SolidWorks, Autodesk Inventor, AutoCAD), Microsoft Office Suite (Word, Excel, Powerpoint), PCB assembly, machining (drill press, lathe, mill)

RECOGNITIONS

Tau Beta Pi—The Engineering Honor Society, Pi Tau Sigma—The International Honor Society for Mechanical Engineers, Eagle Scout, National Merit Scholar Finalist