

Dixun Cui

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Education

University of California, Berkeley

GPA: 3.93 / 4.00

B.S. Mechanical Engineering

Expected Graduation: May 2022

Minor in Electrical Engineering and Computer Sciences

Relevant Coursework: 3D Modeling, Devices and Systems, Data Structures, Solid Mechanics, Manufacturing and Tolerancing, Thermodynamics, Mechanical Behavior, Processing of Materials, Microprocessor-Based Mechanical Systems, Dynamic Systems (IP), Planar Machinery (IP), Intro to Robotics (IP)

Skills

Hardware: 3D Printing, Laser Cutting, TIG Welding (Aluminum/Steel), Machine Shop (Mills, Lathes, Drills), Tormach/Shopbot CNC, Material Property Testing, Soldering, Woodworking

Software: Solidworks, Fusion 360 CAM, AutoCAD, MATLAB, LabVIEW, Simulink, Allen Bradley PLC, Python, Java, HTML/CSS, Microsoft Office, Adobe Illustrator

Work Experience

Manufacturing Engineering Intern, Procter & Gamble

Jun 2020 - August 2020

- Executed process improvement and reliability projects on Always Infinity Pad manufacturing lines
- Reduced packing robot stops by 66% with installation and documentation of a vision reject system
- Generated \$13,000+ in annual material savings through PLC logic optimization and standardization

Lab Teaching Assistant, UC Berkeley EECS Department

Jun 2020 - Present

- Teaching applications of linear algebra and circuit design to a 60-student weekly lab section
- Responsible for managing student progress, developing examinations, and training new course staff

Undergraduate Researcher, Kosa Goucher-Lambert Lab

Jun 2019 - Present

- Investigating the effect of varying computer stimuli and aids in engineering design problem-solving
- Individually constructed a GUI and data collection program in MATLAB for user testing

Projects

Team Lead, *Berkeley Human Powered Vehicle Team*

Sep 2018 - Present

- Overseeing design and manufacturing of a custom recumbent bicycle capable of reaching 60 mph
- Led frame assembly including design, simulation testing, and coordinating machining and welding
- Facilitating design reviews, part ordering/budgeting, and member training for a team of 20 engineers

Sheet Roller Machine, *Processing of Materials in Manufacturing*

Jan 2020 - Present

- Designing and building a prototype sheet roller machine able to roll plasticine 15 mm thick to 5 mm
- Optimized materials and processes for the prototype and full-scale roller using Ashby Charts

Other Projects: Snowboard Helmet Phone Mount, 3D Printed Face Shields for Hospitals, CNC Hockey Stick-Shaped Bottle Opener, Voice Controlled Car, Wind Turbine Prototype, "Gitlet" Version Control System

Leadership Experience

Industrial Relations Officer, Tau Beta Pi

January 2020 - Present

- Reach out to and host company events for students as a member of Berkeley's engineering honor society and recognized for academic standing in the top eighth of the class