Jack Wallis

Contact:
jackbwallis@berkeley.edu

Portfolio:
www.jackwallis.space

About

I'm a mechanical engineer at UC Berkeley, passionate about all things mechanical design: CAD, simulation, prototyping, and manufacturing. I also have SWE experience.

Skills

(years of experience)

Solidworks	3
Fusion	1
AutoCAD	1
Arduino/RPi	3
3D Printing	2
Laser Cutting	2
Mill/Lathe	1
TIG Welding	1
Python	3
Java	2
HTML	2
MATLAB	1
Illustrator	2
InDesign	5
Photoshop	5

Experience

Engine Package Engineer
Formula SAE **January 2019->**

I fully rebuilt the bottom-end of our race car engine. I designed the cooling system for our 2020 car, validated stiffness, cooling capacity, and airflow with FEA, and manufactured it in the machine shop.

Mechanical Engineering Intern **November 2019->**
covariant.ai

I work with the hardware team to design and prototype end-effectors and enclosures for robotic arms in order to study smart grasping and trajectory optimization.

Undergraduate Researcher **March 2020->**
Hybrid Robotics Lab

I work on the aerial robotics team, designing and fabricating fixtures and actuated joints for testing and optimizing novel autonomous quad rotor control algorithms.

Undergraduate Researcher **April 2020->**
Fire Research Group

I use CFD simulations to evaluate the spread of wildfires and fire-succeptibility of strucutres at the wildland-urban interface.

Software Engineering Intern **Summer 2019**
KUGU Home

I built and deployed statistical analysis and visualization tools for KUGU's energy efficiency product. Automated multiple regressions for temperature data and developed Jinja templates with Flask server to publish results.

Education

University of California, Berkeley **Expected 2021**

Mechanical Engineering, senior standing.

Relevant coursework: Solid Mechanics, Mechanical Behavior of Engineering Materials, Electronics for IoT, Prototyping & Fabrication, 3D Modeling for Design, Critical Making, Manufacturing & Tolerancing