

Jason Feldkamp

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EDUCATION

University of California, Los Angeles

Expected Graduation Date: June 2021

Bachelor of Science, Aerospace Engineering (3rd year)

GPA: 3.99

INTERNSHIPS

Engineering Design Summer Institute Instructor | UCLA Engineering

April 2019 – August 2019

- Instructed a 6-week long college-level course for 60 high school students on the design and construction of high-powered rockets, culminating in successful launch and recovery to 2,500 ft in the Mojave Desert
- Developed all relevant coursework on rocketry, flight dynamics, propulsion theory, advanced fabrication techniques, CAD design, and flight simulation through both theoretical lectures and hands-on activities
- Managed selection and purchase of class materials and transportation logistics to the launch site

Mechanical Design Intern | Precision Flight Controls, Inc

June 2018 - August 2018

- Designed and assembled a Boeing 737 column yoke with force-feedback control loading for commercial use in FAA FFS Level D flight simulators

PROJECT EXPERIENCE

Personal MATLAB Projects | Portfolio: <https://jasonfeldkamp.github.io/>

September 2018 – Present

- Developed simulations, animations, and mathematically-inspired art, including a two-dimensional missile tracking algorithm, chaotic double pendulum simulation, N-body simulation, Fourier series animation, several fractal generating scripts, animated sorting algorithms, among others

Rocket Project at UCLA

September 2017 – Present

- Served as Recovery Chief Engineer and designed and built a dual deployment parachute recovery and payload ejection system for a high-powered hybrid rocket for the Intercollegiate Rocket Engineering Competition (IREC)
- Led static tests of recovery systems (altimeters, black powder, CO₂, body tube separation)
- Used MATLAB to calculate rocket descent velocity and energetics mass to perform trade studies on parachutes, parachute bays, and shear pins
- Served as Business and Outreach Officer and organized education outreach events to promote STEM education to underrepresented elementary and middle school students in the Los Angeles area
- Worked on design and manufacturing of a scalable canard active-control system for model rockets

Scratch built Remote Controlled Planes and Quadcopters

2012 - 2017

- Soldered and assembled motors, electronic speed controllers, power distribution boards, cameras, video transmitters, and flight controllers to build multiple competitive FPV racing drones and RC planes
- Designed, produced, and sold carbon fiber composite quadcopter frame kits for FPV racing drones

AWARDS / HONORS

2nd Place at IREC SRAD Hybrid/Liquid Rocket Competition

June 2018

UCLA Regents Scholar (\$8,000 scholarship, awarded to top 1.5% of UCLA students)

May 2017

UCLA Alumni Scholars Club National Champion (\$20,000 scholarship)

April 2017

RELEVANT SKILLS

Fusion 360 | Solidworks | 3D Printing | MATLAB | C++ | HTML / CSS | JavaScript | Excel Data Analysis

WORK EXPERIENCE

Lifeguard and Swim Instructor | Spare Time Aquatics

May 2015 - August 2018

- Taught swim technique to children ages 2-18, lifeguarded, and performed maintenance duties

Assistant Swim Coach | Gold River Stingrays Swim Team

May 2017 - August 2018

- Coached competitive swimmers ages 7-18, led team to a Northern California Conference Championship