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, CO_2, 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

OTHER 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