

Abhay Negi

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EDUCATION

University of California, Davis

Both degrees expected June 2020

- Bachelor of Science, Aerospace Science and Engineering
- Bachelor of Science, Mechanical Engineering
- Physics Honor Student
- Cumulative GPA: 3.85/4.00, Engineering GPA: 3.92/4.00

EXPERIENCE

Attitude Determination and Controls System Lead

September 2017 - Present

Space and Satellite Systems

- Guide and manage operations of sub-system for CubeSat to be launched into orbit in 2020
- Research, develop, and test magnetorquer coils and reaction wheels for attitude control
- Lead team and collaborate with Programming, Electrical, and Structure sub-systems

Undergraduate Researcher

September 2018 - Present

UC Davis Aeroacoustics Lab

- Model fluid dynamics in OVERFLOW with meshes generated in OVERGRID
- Analyze aeroacoustic behavior of unsteady and turbulent flows
- Research blade vortex interaction of eVTOLs and dynamic stall of airfoils

Wheels and Controls Engineer

January 2018 - September 2018

UC Davis Onelooop

- Developed CAN Bus network and protocol for pod to be entered in 2019 Hyperloop Pod Competition
- Optimized communications, programmed micro-controllers, and built circuitry for control systems
- Created CAD models and manufactured parts for pod wheels

Designer and Drafter

July 2017 - Present

UC Davis Lab 9195

- Develop vacuum deposition chamber to be used in DarkSide-50 dark matter research
- Design CAD and create technical drawings for vacuum chamber
- Integrate chamber with vacuum pumps, electronics, and software

Race Director

December 2016 - March 2017

The Pizza Run

- Planned and directed race that funded construction of track at Lowell High
- Managed event logistics, contacted sponsors, advertised, created budget, arranged supplies
- Successfully raised over \$15,000 and initiated construction of track

SKILLS

Computer: SolidWorks, OVERGRID, OVERFLOW, MATLAB, Java, C, Python, HTML, CSS, Excel, \LaTeX

Technical Skills: CFD, CNC Machining, Manufacturing, Chemical Etching, Micro-controllers, Circuitry

Communication: Experienced in public speaking, interpersonal communication, presentations, and outreach

Languages: Fluent in Hindi and Urdu, Proficient in Elementary Spanish