AAYUSH PATEL

CONTACT

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/aayushpatel1

EDUCATION

-B.S. Mechanical Engineering
-Minor EECS
-Certificate in Entrepreneurship and Technology

University of California, Berkeley
Berkeley, CA | May 2020 | GPA 3.52

Relevant Coursework

- Manufacturing and Tolerancing
- Thermodynamics
- Fluid and Solid Mechanics
- Physics Mechanics, Magnetism, & Electricity
- Drafting and CAD Design
- Java and Data Structures
- Multivariable Calculus
- Linear Algebra & Differential Eqs.
- Challenge Lab
- Technology Firm Leadership

SKILLS

Software

- Solidworks
- AutoCAD
- Autodesk Inventor
- Autodesk Fusion 360
- MS Office Suite
- Adobe Suite

Manufacturing

- Mills and Lathes
- Laser Cutting
- FDM and Polyjet 3D Printing
- Design for Manufacturing and Assembly

EXPERIENCE

MECHANICAL ENGINEERING INTERN

NovaWurks, Los Alamitos, CA // *May 2017-Aug 2017*

- Led the restoration and depressurization of a vacuum chamber for in-house satlet TVAC testing
- Designed and manufactured a versatile rig to accurately test satlet camera functionality
- Directly communicated with local machinists to design for manufacturability
- Developed a multi-material 'ball-catch' connector, fusing rubber and plastic via polyjet 3D printers
- Gained rapid prototyping experience by utilizing mills, lathes, and FEA to develop parts

PROJECT MANAGER

DiversaTech, Berkeley, CA // *Aug 2017-Present*

- Spring 2018 | LinkedIn: Conducting market research for a new web and mobile feature
- Fall 2017 | Google: Evaluated the Google Analytics 360 Suite and provided strategic recommendations to improve the product for industry growth

UNDERGRADUATE RESEARCH ASSISTANT

CITRIS and the Banatao Institute, Berkeley, CA // *Nov 2017-Present*

- Conducting analysis on the implementation of both single and multi-walled carbon nanotube forests in supercapacitors to develop high energy density batteries
- Using COMSOL to conduct static and current-based simulations

CALSOL (SOLAR ELECTRIC VEHICLE TEAM)

UC Berkeley, Berkeley, CA // *Dec 2016-Sep 2017*

- Worked in the mechanical team to design and analyze the vehicle chassis and suspension
- Designed the vehicle doors, redirecting side impact forces and improving crumple zones
- Worked with composite materials, such as carbon fiber, and conducted layup processes for the vehicle's shell

PROJECTS & AWARDS

AEROSPACE DESIGN CHALLENGE – 1ST PLACE

Autodesk, ASME // *Feb 2017-Mar 2017*

- Designed a vertical take-off and landing personal air vehicle (PAV) for middle-class consumers
- Used Fusion 360 to design the PAV and worked under strict production and operational limits
- Focused on the physics and mechanics of the tilt wing system, including power transmission

CALHACKS – BEST USE OF MICROSOFT COG. SERVICES

Microsoft // *Oct 2017*

- Developed a public speaking web assistant that tracks facial emotions, talking speed, and filler words, utilizing Microsoft Azure's Vision and Custom Speech APIs

HACKTECH – BEST USE OF GOOGLE APP ENGINE

Google // *Mar 2017*

- Developed a NLP-based chatbot to control Nest Thermostats via Skype, Facebook Messenger, or SMS, utilizing Microsoft Azure's LUIS API