Aayush Patel

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aayushpatel1

Education

2016 - 2020 **University of California, Berkeley | Berkeley, CA**
Bachelor of Science in Mechanical Engineering — Class of 2020
Intended Minor - Electrical Engineering & Computer Science — GPA - 3.33

Relevant Courses
- General Chemistry
- Physics
- Drafting & Design / AutoCAD
- MATLAB
- Linear Algebra / Differential Equations
- Introductory Java
- LabVIEW
- Multivariable Calculus

2012 - 2016 **Oxford Academy High School | Cypress, CA**

Experience

Mar. 2017 - present **Mechanical Engineering Intern | NovaWurks**
- Led the restoration and pressurization of a vacuum chamber for HiSat (Hyper-Integrated Satlet) TVAC testing
- Designed and manufactured a versatile rig to accurately test HiSat camera functionality
- Gained rapid prototyping experience by utilizing polyjet 3D printers and FEA to develop parts

Dec. 2016 - present **CalSol (Solar Electric Vehicle Team) | UC Berkeley**
- Currently working in the mechanical team and using computer modeling to design and analyze the chassis and suspension

Jun. 2015 - Aug. 2015 **Mechanical Engineering Intern | Ishii Engineering**
- Helped redesign the La Mirada Kindred Hospital HVAC system, utilizing AutoCAD and complying with federal engineering codes

Jun. 2015 - Aug. 2015 **Research Intern | University of California, Irvine**
- Manufactured and flew an insect-like flapping wing micro air vehicle
- Designed and optimized the primary frame and passive flapping mechanism

Jun. 2015 - Aug. 2015 **Research Intern | Chapman University**
- Researched the effects of anthropogenic emissions using NASA's Giovanni Earth satellite data
- Discovered Nitrogen Oxide level trends and published results in a high school research journal

Projects

Feb. 2017 - Mar. 2017 **ASME Aerospace Design Challenge | UC Berkeley**
- *Awarded 1st Place and Best Use of Fusion 360*
- Designed a vertical take-off and landing personal air vehicle (PAV) for middle-class consumers
- Utilized Fusion 360 to design the PAV and worked under production and operational limits
- Focused on the physics and mechanics of the tilt wing system, inlcuding power transmission

Nov. 2016 **Dual Output Servo Design Project | UC Berkeley**
- Created a complete set of AutoCAD drawings of a single output servo redesigned to be a dual output servo

Awards

Mar. 2017 **Best use of Google App Engine (Hacktech 2017) | Google**
- Developed a chatbot to control Nest Smart Thermostats

Jan. 2016 **Finalist Scholar | The National Space Club**
- Recognition in mechanical & aerospace engineering for research with micro air vehicles and work in robotics

Dec. 2015 **Invention Challenge | NASA-JPL**
- 3rd Place & Most Unique Projectile Launching System Design

Jul. 2015 **Management Information Systems | FBLA**
- 1st Place in California (2x consecutive champion)

Skills

Programs:
AutoCAD, Autodesk Inventor, Autodesk Fusion 360, Solidworks, MS Office Suite

Machining/Manufacturing:
band saws, drill presses, grinders, lathes, hand tools, 3D printing, mills

Interpersonal:
collaborative, adaptive, critical thinker

References

Alejandro Peralta
Mentor/NASA-JPL Engineer

John Wright
Mentor/NASA-JPL Engineer

Ramesh Singh
Chapman Professor of ES

Contact information available upon request