

ASHIK SIMON

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EDUCATION

University of California San Diego, La Jolla

September 2018 - Present

Candidate for B.S. in Mechanical Engineering

GPA: 3.74

- **Relevant Coursework:** Introductory Mathematical Physics, Elements of Materials Science, Engineering Graphics and Design, Business Project Management, Introductory Fluid Mechanics, MATLAB Programming for Engineering Analysis
- **Coursework in Progress:** Dynamics and Vibrations, Heat Transfer, Solid Mechanics I

CAREER OBJECTIVE

To obtain engineering workplace experience by providing innovative design, attention to detail, and following the organization's objective.

PROJECTS

Northrop Grumman Innovation Challenge

2015 - 2016

- Team-based competitions that are organized by Northrop Grumman with strict time constraints, budget constraints, and on the spot thinking for troubleshooting
- Developed a helium airship design the first year by manufacturing a custom aerodynamic balloon and implementing model RC aircraft controls
- Designed a hovercraft capable of carrying 15 lbs of payload through an obstacle course

FIRST Robotics Competitions Alpha Knights

2017 - 2018

- Team of students and mentors construct a competitive robot within six weeks
- Oversee the integration of various subsystems by designing and fabricating parts as well as delegating tasks to newer members
- Thoroughly researched components to not violate competition rules and regulations

Craftvue

2018 - Present

- Developed a custom web application to help teachers and students organize safety assessments and material inventory for woodshop classes
- Involved front-end and back-end web development with the Laravel web framework as well as creating and maintaining a custom server instance
- The site has been deployed to two schools with over 250 users

Design/Build/Fly (DBF) AIAA

Oct 2019 - Present

- The Design/Build/Fly (DBF) student team designs, fabricates, and demonstrates the flight capabilities of an electric-powered, radio-controlled aircraft that can best meet a given mission objective
- Construct lightweight RC airplane airframes utilizing various composites and adhesives including carbon fiber, kevlar, and fiberglass
- Prepare control surfaces and mount servos in innovative ways to minimize drag
- Create positive molds from foam using hot-wire and sanding with a high attention to detail in order to prevent imperfections in final product

Yonder Dynamics

Oct 2019 - Present

- Build a functioning mars rover style robot for the University Rover Challenge
- Responsible for creating a light weight high dexterity robot arm with six degrees of freedom
- Work with Solidworks modeling/simulation as well as physics risk reduction calculations
- Developed rotating base out of acetyl that is capable of withstanding high loads while remaining lightweight
- Designed cost-effective parts that are manufacturable with on-campus equipment, primarily 3D printing and lasercutting
- Review technical documentation to look for design improvements

WORK EXPERIENCE

Scripps Memorial Hospital, Encinitas

2016-2018

Volunteer Receptionist

- Responsibilities included greeting visitors, answering all incoming calls and refer calls to appropriate staff members, and maintaining inventory of office supplies
- Guide visitors to various parts of the hospital
- Ensure cleanliness of office areas for staff, visitors and clients

SKILLS

Modeling and Analysis

Autodesk Fusion 360, Autodesk Inventor, Solidworks

Software & Tools

MS Office, LaTeX, PhpStorm, Github, Arduino

Programming Languages

Java, Php, C++, MatLab, Laravel Framework

Fabrication & Prototyping

woodshop machinery, CNC, lasercutter, 3D printing, soldering

HONORS

- UCSD Provost honors for 5/5 quarters awarded for 3.5+ GPA
- Nordson BUILDS Scholarship awarded for pursuing manufacturing industry