

Ashik Simon

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EDUCATION

University of California San Diego
B.S. in Mechanical Engineering(Junior)

La Jolla, CA
September 2018 – June 2022

EXPERIENCE

Mechanical Design Engineer
Yonder Dynamics

Oct. 2019 – Present
UCSD La Jolla, CA

- Collaboratively worked with a group of student engineers to build a robot for the University Rover Challenge
- Created a lightweight, high dexterity robot arm with six degrees of freedom
- Worked with Solidworks CAD modeling/simulation to perform risk reduction utilizing FEA
- 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

Fabrications Engineer
AIAA Design-Build-Fly

Oct. 2019 – Present
UCSD La Jolla, CA

- Worked with a team of students to design, fabricate, and demonstrate the flight capabilities of an electric-powered, radio-controlled aircraft
- Constructed a lightweight 5 foot wingspan airplane airframe weighing under 3 kilograms
- Utilized multiple composites and adhesives for layups including carbon fiber, kevlar, and fiberglass to achieve desired strength properties
- Applied mold making concepts to manufacture positive molds from foam using hot-wire cutters
- Troubleshooted and made repairs on the field to minimize testing downtime

Software Developer
Craftvue

Jan. 2018 – June 2019
San Marcos, CA

- Developed a custom application with Laravel web framework to help teachers manage data, organize safety assessments, and material inventory
- Effectively communicated with clients to properly incorporate ideas and concepts into the application
- Successfully implemented in two schools with over 250 users

Subsystem Engineer

FIRST Robotics Competitions Alpha Knights

Sep. 2016 – June 2018
San Marcos High School, CA

- Oversaw the integration of multiple systems by designing and fabricating parts as well as delegating tasks to newer members
- Thoroughly researched components and followed competition policies and procedures
- Attended FIRST worlds championship after obtaining the Rookie All-Star Award for innovative design

Engineering Team Member

Northrop Grumman Innovation Challenge

Oct. 2015 – April 2016
San Marcos High School, CA

- Developed a helium airship design the first year by manufacturing a custom mylar balloon and implementing model RC aircraft controls
- Designed a hovercraft capable of carrying 15 lbs of payload through an obstacle course

TECHNICAL SKILLS

Modeling and Analysis: Autodesk Fusion 360, Autodesk Inventor, Solidworks

Programming Languages: Java, Php, Python, MatLab

Fabrication & Prototyping: Woodshop Machinery, CNC, Lasercutting , 3D Printing, Soldering

HONORS

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

EXTRA PROJECTS

- Constructed a 9 foot tall trebuchet in the Explorer Post STEM youth organization
- Competed in the San Diego Regional Science Olympiad. Awarded 1st place for robot arm event and 3rd place for hovercraft event.
- Build and modify 2 Prusa I3 style RepRap 3D printers