John Daniel

Engineering Student, STEM Advocate

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EXPERIENCE

Makerspace Specialist: Virtual Reality/3D Printing Specialist

-Using 3D design, 3D printing, sewing, coding (e.g. Arduino, Raspberry Pi), virtual reality and augmented reality programming, electronics, vinyl cutting, and video and audio production, patrons are encouraged and empowered to make their ideas become a reality. Help maintain the public maker space and equipment, help with basic maker and general computing questions, teach basic maker skills, and help prepare and maintain the studio during production and in the post-production phase of work done in our space.

Nov 2020-Present

Lead Engineer, CAD Manager, Club President, FIRST Robotics Competition Team #996

-I was responsible for leading the engineering team, project management, fundraising, robot design, team dynamics, budgeting, training, computer-aided design, and drive team management.

Technical Lead and CAD Manager, Lemelson-MIT InvenTeam

-I was responsible for designing and fabricating a wildfire home protection device. I designed the device using SolidWorks, ran simulations, ordered material, and created a working prototype.

SolidWorks Tutor and Workshop Lead

-I have spent a lot of time tutoring SolidWorks concepts such as intermediate part and assembly making as well as deployment to SolidWorks orthographic drawings. Additionally in the Winters of 2017, 2018, 2019 I would teach Solidworks Workshops to High School Robotics teams.

EDUCATION

SKILLS

Extemporaneous Speaking

SolidWorks Instructor

Arduino, Python, C++

Altium

Makerbot Software

Ultimaker Cura

3D Printing

Adobe Illustrator

Laser Cutting/Engraving

General Office Software

Fast-Learner

Motivated

AWARDS

Ira A. Fulton Schools of Engineering Dean's List: I earned a Dean's list Certificate for outstanding grades and dedication to my academics.

Certified SolidWorks Associate (CSWA): I earned this certification in SolidWorks Part and Assembly Drawing, Sheet Metal, and basic Analysis techniques.

Lemelson-MIT $10,000 Grant: I was part of a team of 8 students who received a

Arizona State University, Tempe, AZ 85281 — *Electrical Engineering*

2020-Present

Casa Grande Union High School, Casa Grande, AZ 85122

2016-2020

Computer Aided Design Class, Casa Grande, AZ 85122

2016

PROJECTS

Fire Defense Initiative (FDI) — *Wildfire Prevention Device*

This project required me to use CAD to design an automated wildfire prevention device that uses a custom control system and sensor package to detect oncoming fires and blanket a home in fire-fighting foam. A provisional patent was received for this project.

JPL Rover — *Beta testing for NASA Jet Propulsion Laboratory (JPL)*

This project hired me and one other classmate to run through the documentation of a then soon-to-be-released open source project being developed by JPL. I made multiple additions to the documentation and contributed my own 3D print models to the initiative.

grant to design and develop a project prototype.

3rd place extemporaneous speech, SkillsUSA: I competed against other students in the state of arizona in improvised communication skills.

SkillsUSA Statesman Award: I was awarded this for my demonstration of integrity and ability to uphold moral standards.

Robotics Team Mentor: I was mentor and coach to a team of 4th and 5th grade students who competed in the FIRST Lego League Robotics competition