NATALIE STROMBERG

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EDUCATION

University Of Texas at Dallas

Richardson, TX

Bachelor of Science in Mechanical Engineering

Expected May 2026

EXPERIENCE

Director of Combat Robotics

April 2023 - Present

Comet Robotics at UT Dallas

Richardson, TX

- · Created a series of workshops for students, teaching 140 students Solidworks design to produce their first Battle Bots
- Utilized Solidworks CAD to create 11 Battle Bots, attending 15 competitions and winning 36 matches
- Utilized 3D printing to rapidly prototype combat solutions, iteratively designing the drive and survivability of each robot
- Conducted outreach and increased the organization's financial resources by 9x year over year
- Increased member retention and overall memberships from 20 to over 100 using on campus events and workshops
- Explored high impact materials such as TPU, UHMW, and abrasion resistant steel alloys
- Explored modular design in robotics, created interchangeable sub-assemblies for combat robots

Community Manager

Sep 2020 – July 2023

Remote

Convex Apps

Managed events, social media presence, and support tickets for a gaming services company

- Conducted regular events, growing platform followers by 80% and increasing community retention by 12x
- Managed support tickets for the app and implemented a more efficient ticket tracking system, reducing ticket open time

Marketing Specialist

July 2017 – March 2020

StonePly

Greenville, TX

- Created marketing materials including Technical Data Sheets, brochures, and videos leading to more architect specifications for products, and increasing quote requests from contractors
- Increased social media traffic by 80%, increased Youtube viewers for the company page, and increased quote requests
- Created new architectural products using CAD and Adobe, such as ceramic tables, stained glass, and custom hardware
- Implemented a new scanning to 3D printing technique, allowing customers to personalize pieces by incorporating 3D printed parts into the molding process, increasing the available product catalog by 10x
- Developed custom products and solutions on critical building projects for Nasa, SpaceX, and the NRC using Solidworks

PROJECTS

Modular Combat Robot Outreach Project | *Solidworks, 3D Printing*

Sept 2023 – Present

- Collaborated with a team of 3 to develop a novel, modular combat robot system for high school outreach
- Designed modular systems, creating unique robot building blocks including 7 weapon attachments and 7 armor attachments that are quickly attached using a grid-dovetail system
- Mechanical modules break at connection points, parts were designed to be reused even after being damaged
- Leveraged 3D printing for rapid development and sustainability on a total budget of \$3,000, printing approx 900 parts
- Hosted 9 workshops with an audience of 40-60 highschoolers each, with all students completing a robot and fighting
- Increased engagement and enthusiasm from students, satisfaction 3x over previous workshops
- Presented the robots to Tech Titans of Dallas TX and achieved finalist in Tech Titans of the Future award

Molding Machine Project | Solidworks, 3D Printing, Arduino, EasyEDA, C#

Nov 2021 - May 2022

- Worked with a partner to develop a innovative, reconfigurable machine for creating molds with a \$2000 budget, with the goal to reduce waste and decrease human labor time
- Used Solidworks to 3D model and produce drawings for manufacturing sheet metal and 3D printed components
- Designed a custom PCB in EasyEDA to control 16 stepper motors and give simple LED feedback to an operator
- Wrote Arduino code for a control system with a USB PC connection, allowing a user to import files and control the machine
- Produced engineering documentation and testing, resulting in reduced molding time, labor, and increased mold accuracy

SKILLS

Programs: Solidworks, Onshape, Autocad, Adobe CC, MS Office

Languages: C++, Arduino, Matlab

Skills: Mechanical Engineering, 3D Printing, Robotics, PCB Design, Project Management, Modular Design, Iterative Design, Computer skills, Remote Control Systems, Technician Ham Radio License