Steven Kuo

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Github: https://github.com/stevenkuo711/portfolio

EDUCATION

University of Maryland College Park, MD
B.S., Mechanical Engineering (GPA 4.0) Expected May 2026
Minor, Robotics and Autonomous Systems
University Honors Expected Citation May 2024

SKILLS

CAD: SolidWorks, Autodesk Inventor, Siemens NX & NASTRAN, Fusion 360
Engineering: FDM 3D Printing, Waterjet, Machining, FEA, Soldering
Programming: Java, C++, MATLAB

EXPERIENCE

Terrapin Works **College Park, MD**
Technician, Instructional Fabrication Lab **February 2023 - Present**

- Trained other students and provided assistance on operating the lab's machines
- Completed customer orders while communicating with them to meet their needs
- Undergoing training and learning how to CAM for the CNC mill

UMD Loop **College Park, MD**
Not-A-Boring Competition - Tunnel Support Member **September 2022 - Present**

- Made parts and engineering drawings in Solidworks to communicate with manufacturers
- Ran FEA on components in NX to determine structural integrity and optimize designs
- Completed hand calculations and bolt-level analysis to justify and improve designs

Leatherbacks Combat Robotics **College Park, MD**
1 lb, 12 lb, 30 lb Team - Member **September 2022 - Present**

- Designed parts in Solidworks for robots in the 1 lb, 12 lb and 30 lb weight classes
- Manufactured parts for the 30 lb and 1 lb robot by operating the waterjet and drill mill
- Soldered all the necessary electronic components for an operational 1 lb robot

Dulaney FIRST Robotics Competition **Timonium, MD**
Team President **September 2018 - May 2022**

- Taught new members how to fabricate parts with metalworking tools and 3D printers
- Collaborated remotely in a design team of 4 members to complete the initial design of the robot with Autodesk Inventor within 2 weeks
- Managed a team of 20 members to fabricate and test a 125 lb robot within 6 weeks
- Supervised the programming subteam to help with debugging in Java as well as incorporating encoders and PID control loops for precise motor control
- Raised $5,000 via sponsorship outreach and presentations to operate the team

Dulaney VEX Robotics Competition **Timonium, MD**
Club Secretary, Team Co-Captain **September 2018 - May 2022**

- Mentored teams within our organization to help troubleshoot and test designs
- Collaborated in a team of 5 to design, build, and test a 18" x 18" x 18" robot
- Programmed with potentiometers and encoders in C++ to craft autonomous routines