Steven Kuo

stevenkuo711@gmail.com | 443-640-8669 | College Park, MD 20742
Github: https://github.com/stevenkuo711/portfolio

EDUCATION

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

SKILLS

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

EXPERIENCE

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

- Fabricated training parts on the waterjet, drill mill, and lathe to demonstrate proficiency
- Assisted with customer orders and maintenance operations for the upkeep of lab space
- Designed a capstone project that utilizes four subtractive manufacturing techniques

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

- Modeled parts with complex geometries in Solidworks
- Created engineering drawings to communicate with manufacturers and get quotes
- 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 robot by operating the waterjet and drill mill

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 and teleoperated controls that assisted the driver