Steven Kuo

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

EDUCATION

University of Maryland — College Park, MD
B.S. Mechanical Engineering — Expected May 2026
University Honors — Expected Citation May 2024

Dulaney High School — Timonium, MD
High School Diploma, GPA 4.00/4.00 (unweighted), 5.81/6.00 (weighted) — June 2022

SKILLS

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

EXPERIENCE

Terrapin Works — **College Park, MD**
Trainee — **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 requires use of four subtractive manufacturing techniques to be completed by the end of the Spring 2023 semester to finish training

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**
12 lb, 30 lb Team - Member — **September 2022 - Present**

- Designed parts in Solidworks for robots in both the 12 lb and 30 lb weight classes
- Manufactured parts for the 30 lb robot by operating the waterjet with CAM software
- Employed the drill mill to perform precision facing operations and place accurate holes

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 through GrabCAD 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