

Steven Kuo

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

EDUCATION

University of Maryland

B.S. Mechanical Engineering

University Honors

College Park, MD

Expected May 2026

Expected Citation May 2024

Dulaney High School

High School Diploma, GPA 4.00/4.00 (unweighted), 5.81/6.00 (weighted)

Timonium, MD

June 2022

SKILLS

CAD: SolidWorks, Autodesk Inventor, Siemens NX & NASTRAN, GrabCAD

Engineering: FDM 3D Printing, Waterjet, Machining, FEA

Programming: Java, C++, MATLAB

EXPERIENCE

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

Leatherbacks Combat Robotics

College Park, MD

1 lb Antweights, 30 lb Member

September 2022 - Present

- Designed parts in Solidworks for robots in both the 1 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 the 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

- Used spreadsheets to keep track of part orders and spending
- 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 sensors like potentiometers and encoders in C++ to craft autonomous routines and teleoperated controls that assisted the driver