

Max McKelvey

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QUALIFICATIONS

Languages: SystemVerilog, Java, Python, C/C++, JavaScript, HTML/CSS

Frameworks: React, Node.js

Design Tools: Altium Designer, KiCad, Autodesk Inventor, Solidworks

Soft Skills: 4 years of leadership experience, 5+ years of technical collaboration experience

EDUCATION

University of Washington

Seattle, WA

Bachelor of Engineering in Electrical and Computer Engineering

Sept. 2021 – June 2024

- 3.85 GPA, Junior Standing, Dean's List Scholarship

EXPERIENCE

Undergraduate Teaching Assistant

September 2022 – Present

University of Washington

Seattle, WA

- Teaching Digital Design and SystemVerilog to Graduate Students
- Writing and editing core curriculum to enhance student experience and understanding

Undergraduate Research Assistant

September 2022 – Present

University of Washington

Seattle, WA

- Developing Indoor Localization for LoRa based IoT sensors
- Discovering applications for small item 3d reconstruction with scanning technology

Software Developer

March 2022 – Present

Husky Coding Project

- Implemented sorting and pathfinding algorithms for an algorithm visualizer web project (algorithviz.xyz)

Mechanical Engineer, Project Lead

September 2021 – Present

Advanced Robotics at UW

- Led the design of a six degree-of-freedom robotic arm for the manipulation of game objects
- Designed the behavior of the 'Engineer' robot to fit the game criteria

PROJECTS

'Flappy Bird' written for FPGA | *SystemVerilog on Terasic DE1-SoC*

August 2022

- * Built a game based on 'Flappy Bird' by programming FPGA hardware
- * Used principles of RTL design
- * Simulated real-time physics for the 'bird'

Personal Website | *React, JavaScript, CSS, node.js, Deta, Vercel*

June 2022 – Present

- * Developing a personal website to showcase my projects and experience

Sprint Metrics Tracker | *Altium Designer, C++, Javascript, React Native*

January 2021 – June 2021

- * Developed a device to measure distance and velocity metrics for sprinters
- * Designed circuit boards, prototyped MVP, wrote backend design, worked on frontend
- * Implemented Euler's Method of integration estimation to measure distance based on acceleration
- * Used quaternions with local orientation to project acceleration onto a 'global' coordinate system

ADDITIONAL ACTIVITIES

Husky Marching Band

Ultimate Frisbee

Long-Distance Cycling