PETER KIM

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EDUCATION

University of Michigan College of Engineering

Bachelor of Engineering in Computer Engineering, Minor in Computer Science

Ann Arbor, MI

GPA: 4.00/4.00

 $Course\ Highlights:\ Electronic\ Circuits\ \bullet\ Data\ Structures\ \&\ Algorithms\ (C++)\ \bullet\ FPGA/Logic\ Design\ \bullet\ Discrete$

Mathematics • Multivariable and Vector Calculus • Differential Equations • Linear Algebra

Organizations: Filipino American Student Association • Korean American Student Association • Shift Creator Space

EXPERIENCE

OOTD - Fashion App Startup

February 2025 - Present

Expected Graduation: May 2027

Co-Founder & Chief Marketing Officer

Remote

- Co-developed a React Native mobile app, assisting with feature planning, UI feedback, and beta testing
- Lead a cross-functional team of 5 to oversee and grow brand presence across Instagram, TikTok, and LinkedIn
- Scaled Instagram reaches from 0 to 200k+ views and 450+ followers in 6 months through strategic content planning and marketing campaigns ahead of app launch

Yazaki North America - Ford Business Unit

May 2025 - August 2025

Software Engineering Intern

Canton, MI

- Reduced engineering drawing review time by 88% (from ~128 hours to <16 hours) within the P800 Ford Program by creating an automated PDF markup tool using Python and OCR
- Achieved an estimated \$44,000 cost savings per frame harness by correcting missing spot tapes in the P800 harnesses
- Deployed an intuitive automated markup application for engineering drawings streamlining quality checks

Plymouth District Library

August 2023 - August 2024

Software Engineering Intern

Plymouth, MI

- Created a Problem Bank website, leveraging JavaScript to store data on Microsoft Excel, which streamlined the process for users to access and solve programming problems, resulting in improved user engagement and satisfaction.
- Managed lab equipment, including 3D printers, while assisting patrons with software such as Fusion 360.
- Contributed to the successful execution of library programs for the lab, enhancing community engagement.

PROJECTS

Hand Gesture Race Car Game | GitHub | PixiJS, Google MediaPipe, Express.js | Hack Dearborn 3

- Programmed a race car simulation with gesture-based control via webcam, demonstrating skills in sensor data processing and real-time control relevant to embedded systems and automation.
- Achieved over 90% accuracy in hand gesture recognition using Google MediaPipe, optimizing data handling for responsive, low-latency control suitable for hardware applications.

Engineering Capstone Project | <u>GitHub</u> | C++, AutoCAD, Computer Vision, Arduino

- Developed an automated snowplow model capable of navigating a 3ft x 3ft area by programming and wiring an Arduino and designing a 3D-printed chassis.
- Detected April Tags with an 85% detection rate during optimal runs using a Raspberry Pi and camera.

3D Math Rendering Software | GitHub | C++, SFML

- Created a 3D rendering tool using SFML to visualize complex mathematical functions, handling up to 9 billion points for high-precision engineering applications.
- Implemented dynamic camera controls using linear transformations to enhance data visualization and interactivity **Missile Pathfinding Simulation** | GitHub | C++, SFML
- Programmed a missile pathfinding simulation using ray marching and pursuit curve algorithms
- Incorporated an efficient hit detection system with O(nh) time complexity using the Jarvis March method

SKILLS & ASSETS

Programming Languages: C/C++, Python, JavaScript, Java, MATLAB, HTML5/CSS3, VBA **Technical Skills:** Digital Circuit Design, Design Release Engineering, ROS2, Git/GitHub, Raspberry Pi, Arduino, Combinatorial Logic, Memory and Data Storage Systems, AutoCAD, Catia, Microsoft Excel