Kevin Yin

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EDUCATION

University of Michigan, Ann Arbor, MI

ME in Computer Engineering   Expected: May 2026

BSE in Computer Engineering - GPA: 3.8   May 2025

·   Relevant Coursework: Data Structs & Algs, Embedded Control Sys, Computer Architecture, Prob. Stats, Machine Learning, Computer Vision, Intro to AI, Eng. Interactive Sys, Mobile Comp. and Sens.

TECHNICAL SKILLS

·   Software Development: C, C++, Python, Matlab, Java, TypeScript, Embedded Sys, Git, SQL

·   Software/Libraries: Tensorflow, Pytorch, Pandas, SK-Learn, Looker, AWS, Linux, Unity, XR Dev

EXPERIENCE

Detection for Nuclear Nonproliferation Group, University of Michigan, Ann Arbor   Present

Research Intern, Hololens Visualization Project - AR, ML, CV, Unity, Python, C, Microsoft Hololens 2

·   Debugged and redesigned a AR imaging pipeline for live nuclear radiation detection through systematic unit testing and Cython conversions of bottleneck functions, reducing runtime by nearly 80%.

·   Building AR features such as shared holographic views and an NN/ML approximation fast mode

Human-AI Lab, University of Michigan, Ann Arbor   Jan. - Jun. 2025

Research Intern, HandProxy - AR, AI, CV, Python, Pytorch, Tensorflow, Unity, Meta Quest

·   Created an AI architecture for detecting relations, such as semantic or spatial similarity, in real time between physical and virtual AR objects using object recognition, object metadata processing, and APIs

·   Enhanced voice command NLP by refining NER for real/augmented objects with relationship graphs

Hybrid Dynamics Robotics Lab, University of Michigan, Ann Arbor   Jun. - Aug. 2024

Research Intern, Computer Vision - Python, Pytorch, Tensorflow, Sklearn, Docker

·   Trained and fine-tuned a Yolov8-based object detection model to enhance vision for DTR autonomous blimp, increasing processing speed by 30% and allowing for more robust edge detection

·   Developed and implemented an image processing algorithm to estimate object orientation relative to embodied camera, improving prediction accuracy by over 80% and next action selection speed by 30%

Crestron Electronics, Rockleigh, NJ   Jun. - Aug. 2023

Summer Intern, Software Engineering - Typescript, Devops, YAML, HTML, Node.js, Git

·   Migrated all actively used CI/CD Azure DevOps classic pipelines into YAML for more intuitive code based version control and ensured retention of integral version history between migration

·   Assisted in extensive Android software product testing and code debugging in Android Studio

·   Integrated Coverity into Azure pipeline build process to display pipeline health diagnostics after runs and created web pages via Node.js and HTML5 to display Coverity scan results in a user friendly format.

PROJECTS

HaptiGlove - Arduino, C#, Unity   Winter 2025

·   Created a haptic glove for use in XR utilizing an ESP32 and built in sensors to enable haptic feedback in XR environments, simulating a realistic hand feel when grabbing and interacting with objects in XR

·   Wrote a processing algorithm/system for glove haptic feedback, using Unity metadata as the input

Sensor Calibration ML Algorithm - Python, Pytorch, Matlab   Winter 2025

·   Developed and evaluated multiple ML models, including LR, MVR, and ANNs, for in-field calibration of low cost sensors using adjacent sensors to improve real-time air quality measurements

EXTRACURRICULAR EXPERIENCE

Michigan AR Initiative, Data Science Team, MSAIL, Rec Tennis Club