

Kyle K. Wilkinson

Cell: 248-296-1490 | Email: kylewilk@umich.edu | Website: kylewilk.com | LinkedIn: linkedin.com/in/kyle-wilkinson7

Technical Skills

- Languages & Frameworks: Java, TypeScript, Python, SQL, Angular, Spring Boot, React, Next.js, HTML/CSS, PyTorch
- Cloud & Infrastructure: GCP (Cloud Run, Pub/Sub), AWS, Kubernetes, Docker, OpenShift, Tekton CI/CD
- Databases: Firestore, PostgreSQL, SQL Server
- Developer Tools: Claude, Gemini, Cursor, IntelliJ, Copilot, Git

Work Experience

Ford Motor Company – Software Engineer

September 2023 – Present

Manufacturing IT Software Engineer

November 2024 – Present

- Led end-to-end development of a full-stack quality assessment platform from concept to deployment across 35+ global manufacturing plants, supporting over 3,000 active users as the application's technical owner.
- Developed a layered approval workflow for 61 vehicle launch assessments using Angular, Spring Boot, and GCP, contributing to more than \$9M in estimated labor savings during the application's first two years.
- Redesigned assessment creation architecture using template referencing and lazy response generation, eliminating up to 300k+ upfront database writes per checklist and improving creation performance by 80×.
- Built two production AI features—an embeddings-based issue clustering tool to group workstation problems, and a context-aware comment suggestion system that reduces manual typing—while helping lead team adoption of AI-assisted dev practices.
- Redesigned metrics processing to update only affected records instead of recalculating entire datasets, reducing latency by 99% while lowering Firestore read costs.
- Conducted on-site GEMBA walks with plant launch operators, translating workflow pain points into product improvements that increased user adoption.

Order Scheduling Software Engineer

September 2023 – October 2024

- Engineered Angular UI features and Spring Boot APIs for the VIN generation platform, enabling business users to directly configure WMI codes, GVWR classifications, and serial numbering logic.
- Migrated legacy vehicle scheduling microservices from Pivotal Cloud Foundry (PCF) to Red Hat OpenShift, containerizing applications to enhance system scalability and deployment reliability.
- Automated dependency upgrades and vulnerability remediation across 100+ repositories using custom scripts, addressing Checkmarx and FOSSA security findings at scale.

FANUC America Corporation – R&D Product Information Intern

May 2022 – August 2022

- Automated documentation publishing workflows, reducing processing time by 70%, enhanced VB.NET user interfaces to reduce operator errors, and implemented MSSQL database triggers for custom version control.

University of Michigan – Research Assistant

May 2021 – January 2022

- Developed a PyTorch model that detected layer-shift faults with over 99% accuracy, built a real-time data collection pipeline that increased throughput 4×, and created a web interface for live fault monitoring.

Technical Projects

AI Agent Support Tool (Internal Hackathon) – Project Owner / Developer

March 2026

- Built an MCP integration that allows AI agents such as Claude and Gemini to retrieve support tickets, perform approved actions, and generate resolution summaries within existing support workflows.

Education

The University of Michigan – College of Engineering – Ann Arbor, MI

April 2023

Bachelor of Science in Computer Science, Minor in Electrical Engineering

- GPA: 3.90/4.00 | Tau Beta Pi (Engineering Honor Society)

Honors

Scouts BSA – Eagle Scout

June 2019

- Fundraised for, designed, and built 3 'Little Free Pantries' for local elementary schools to fight food insecurity.