Kyle K. Wilkinson

Cell: 248-296-1490 – Email: kylewilk@umich.edu – Website: kylewilk567.github.io/

Education

The University of Michigan – College of Engineering - Ann Arbor. MI

Bachelor of Science in Computer Science, Minor in Electrical Engineering **May 2023**

- GPA: 3.90/4.00
- Coursework in Calculus 1-4, Linear Algebra, Data Structures and Algorithms, Statistics, Logic Design, Computer Organization, Embedded System Design, Web Systems, Software Engineering, and Computer Vision
- Strong understanding of Java, C++, Git, VB.NET, and Python
- Recipient of Regents Scholarship 2019-2020

Work Experience

Ford Motor Company – *Software Engineer* **September 2023 – Present**

- Create and test API endpoints using Java Springboot, OpenAPI, and 42Crunch to facilitate scheduling of vehicle manufacturing at different Ford plants
- Prototyped an idea to streamline sharing and management of information using React and TailwindCSS for FCG Hackathon

FANUC America Corporation – *R&D Product Information Intern* **May 2022 – August 2022**

- Streamlined common procedures leading to an estimated 70%-time-reduction in publishing manuals
- Worked directly with users to find inefficiencies with information management tool to incorporate fixes that suit their needs
- Modified user interface using VB.NET to be intuitive to reduce user error
- Used Git to manage several releases of information management tool for faster project turnaround times
- Created SQL procedures and triggers to develop a source control system for multiple database tables

University of Michigan – *Research Assistant* **May 2021 – January 2022**

Fault Prediction for FFF 3D Printing (September 2021 – January 2022)

- Developed a neural network using PyTorch that can predict a layer-shift fault with over 99% accuracy to allow users to adjust printer settings before a fault occurs and save time and money
- Designed and implemented a data collection system that allows tests to be done four times faster

Automatic Fault Detection for FFF 3D Printing (May 2021 – September 2021)

- Created algorithms to detect faults using real-time data and touch-probe sensor
- Used multi-processing to allow for sample-point generation and 3D printing concurrently with Python
- Created an advanced, user-friendly interface using HTML, CSS, JavaScript, Bootstrap, and Knockout

Game Development – *Project Owner / Developer* **April 2020 – August 2023**

- Program software for Minecraft using Java and work with clients to create programs that meet their needs
- Guide aspiring Java developers in creating software for a Minecraft server by giving code reviews and making sure the team is on track to meet deadlines
- Design a pathfinding algorithm that generates roads automatically in a 3D space while making efficient use of memory
- Integrate MySQL databases with software allowing organized data storage and faster data queries

Leadership & Achievements

Tau Beta Pi (Engineering honor society) **December 2020 – Present**

Scouts BSA **2012 – August 2019**

Eagle Scout (June 2019)

- Fundraised for, designed, and built 3 Little Free Pantries for local elementary schools to fight food insecurity.
- Awarded Outstanding Student Volunteer of 2019 by Lakes Area Chamber of Commerce for dedication to community service through Interact and Eagle Scout Project.

Troop Leadership

- Troop Guide (2 years) – Introduced new scouts to the troop. Helped the new patrol work independently by guiding the patrol leader. Assisted the leader when necessary and taught basic skills to the patrol.

Treger Studio of Martial Arts (Karate instructor and First Degree Black Belt) **December 2016**