

Timothy Keeton Ketron (Keeton)

Computer Science Engineer

A computer Science Engineer, who enjoys passion projects in my free time to optimize and improve everyday life be it on the computer or hands on activities.

Contact Info

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📄 [TKKetron.github.io](https://github.com/TKKetron)
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Education

Computer Science Engineering

University of Louisville
08/2020 – 05/2024
BS in Computer Science Engineering

SKILLS

Object Oriented Programming

C# WinForm Git C

WPFForm Arduino C++

Java Python OpenCV

Web Development Blazor

HTML CSS JS SQL

Embedded Systems KiCad

Eagle PCB PCB Design

Extracurricular

River City Rocket Team

Avionics Lead

08/2020 – Present

Led the avionics team in multiple projects including a steerable payload and a tracking system.

3814 PiBotics – First Robotics Team

Programming Lead

08/2016 – 05/2019

Organized the programming team during the competition season to build an effective robot in that year's competition.

Work Experience

Systems Engineer

Wicked Sheets

10/2023 - Present

A SMART sheet manufacturing company currently developing blankets for nursing home patients to detect when a patient might need assistance.

Achievements/Tasks

- ❑ Rewrote the entire product code base to better reflect industry standards. This includes features such as version control to allow for remote deployment and software updates.
- ❑ Reviewed and updated the current software and hardware for the developing prototype. This included design changes to improve robustness and usability for the customer while minimizing cost increases.
- ❑ Developed proof of concept for an external facing site rewrite with IoT integration using a MAUI/Blazor hybrid app allowing for a single UI used by mobile and browser applications.
- ❑ Managed mechanical and electrical engineers to develop, test, and produce functioning prototypes of the next gen product including PCB design and mechanical drawings.

.Net/CSS Developer

LG&E

01/2022 - 01/2024

Achievements/Tasks

- ❑ Developed an internal website for new contractors to onboard and navigate the LG&E ecosystem in Blazor.
- ❑ Initiated the process of consolidating all internal pages from Blazor and Angular to React for a uniform and more comprehensive structure within the company.
- ❑ Programmed with SQL to manage and compile data from a large database to track customer data and to inform business decisions.

Embedded and Software Engineer

Advanced Automations

09/2023 - 12/2023

A solutions company tailored to creating unique and effective products to automate tasks

Achievements/Tasks

- ❑ Developed an interactive and effective touchscreen UI to allow a user to control a coffee machine built for a client.
- ❑ Updated and optimized a control system that regulates flows between 2 fluctuating flows of liquids to maintain a set ratio.
- ❑ Integrated a previously designed system to interface with a microcontroller and a Raspberry PI to simplify the system by removing unnecessary discrete components and adding a user interface.

Personal Projects

All personal projects shown below and more can be viewed in more detail at TKKetron.github.io

- ❑ **Maze Generation and Solver** – An interactive program created in a C# WinForm to generate a maze using a multitude of known algorithms like iterative, Kruskal's, prim's and more. This program also includes a solver using the A* algorithm. All programmed with object-oriented objectives in mind to further iterate.
- ❑ **Snake/Minesweeper AI** – A threaded application using the deep learning approach to train an AI to play the classic games. Used to test different layers sizes and inputs for the AI. Limited by training on a CPU which has greatly reduced learning rate when compared to AI's that use a GPU.
- ❑ **D&D interactive Handbook** – A large scale C# WinForm project that parses data from various website to build a comprehensive all-inclusive handbook for all the information about the game Dungeons and Dragons 5e. This program is a work in progress but will also allow the user to make a character in the application as well as search any feature or monster from the game.
- ❑ **Personal Web Scraper** – an application that I can program to pull any desired data from a website that does not have a preexisting API for me to use. Information has included auction data from website like eBay, as well as information I can use in my personal D&D application listed above.