Mark Ruzicka

1216 Spring St. Apt 110 Madison WI 53715 | +1 (414) 791-6878 | markfruzicka@gmail.com

Education

University of Wisconsin – Madison Expected Graduation: December 2025

Bachelor of Science in Computer Science | Data Science | Economics GPA: 3.6 / 4.0

Courses: Advanced Data Structures in Java, Machine Organization and Programming in C, Intro Data Modeling & ML in Python, Discrete Math, Linear Algebra

Languages: Python, Java, C, R, HTML, JavaScript, VBA, SQL

Experience: Pandas, Google Maps API, ChatGPT API, Flask, Selenium, Socket.io, React, NodeJS, PyTorch, GitHub, GitLab & CI/CD Pipeline

Professional Experience

Undergraduate Research | Morgridge - Madison WI (September 2024 – Current)

- Developed a Python driver using the Pyserial library, enabling real-time data communication between the Safety Interlock Controller and the GUI
- Managed frontend and backend development of the main control system for an electron beam 3D printer, optimizing the user interface for a cleaner and more effective experience
- Collaborated with a team of 2 other students to efficiently complete our sprints

Teaching Assistant | UW – Madison CS – Department - Madison WI (January 2024 – Current)

- Explained key concepts of the course to students in one-on-one and lab sections of up to 60 students, covering Data Structures, Web Scraping, and Introductory Machine Learning Algorithms
- Provided alternative perspective and resources to help students better understand complex problems
- Created and reviewed challenging assessments, including weekly quizzes and exams; thoroughly checked questions from fellow TAs to ensure accuracy
- Revised and streamlined project and lab instructions, making them more concise and user-friendly

Automation Engineer Intern | Green Bay Packaging - Green Bay WI (Jan 2023 – May 2024)

- Managed necessary changes, such as frontend visuals and backend addition tools, to the control screens with integration into VBA, FactoryTalk Studio and Logics tag-tracking software, to increase the efficiency of Machine Tenders work
- Automated the process to create and produce remotely accessible screens with Python, that provided real time data and performance statistics from the paper machine to Engineers and Machine Tenders
- Created and managed Power BI reports to efficiently show accurate data for quality metrics and cost tracking, to provide Supervisors and Engineers with graphs and statistics to make crucial decisions

Projects

Madison Parking Ticket Website - http://www.parking-in-madison.com (May-June 2024))

- Developed and designed backend with JavaScript and Python, to filter, manipulate, and allow user input to display requested information
- Wrote a Python script using Selenium to asynchronously collect data, allowing the page to provide users with recent statistics
- Designed the webpage to be simple and intuitive, for users to efficiently find relative information
- Deployed and managed the website on my personal server using DNS & network firewall configurations

Electronics Diagnostics & Repair

- Investigated behavior of faulty electronics to find sources of problems and resale on consumer market
- Used soldering, hot air, and circuit continuity to replace damaged components and return devices to full functionality