

# Michael Kuhn

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## Education

University of Wisconsin–Madison – B.S. Mathematics, Computer Sciences –May 2024 Graduation – 3.75/4.0

## Work Experience

Wisconsin School of Business      Teaching and Learning Analytics Developer      May 2023 – May 2024

- Developed automated syllabus verification using Python and ensemble integration of OpenAI/Vertex APIs
- Implemented SCD Type-2 database versioning system using Google SQL for student enrollment data
- Built visualizations using Looker Studio to track receipt of course evaluation data

Farm 2 Facts      Student Software Developer      Sept. 2021 –Sept. 2023

- Developed website in English and Spanish using Vue.JS/HTML/CSS, using GitLab to ship code
- Developed REST-framework API endpoints using Ruby on Rails tailored to agent-based modeling use cases
- Researched and removed ~1000 spam accounts using PostgreSQL, presented at UW research symposium

UW–Madison Rec Well      Sports Program Supervisor      Sept 2022–May 2023

- Responsible for oversight and management of intramural and club sports competitions
- Collected participant data to gain insight into potential areas for program growth
- Supported professional staff through administrative tasks such as email and data entry

## Project Experience

Heart Disease Prediction

- Built SVM/Random Forest model using Scikit-learn and clinical data to achieve ~80% prediction accuracy

Chess Robot Arm

- Robotics course project implementing Python ROS to control a robotic arm that executes chess moves

Running Route Planner

- Utilized Strava and Mapbox APIs to suggest routes based on user preferences, 2D Satellite Map UI

Math Department Directed Reading Program

- Research and implementation of CNNs, GCNs, GNNs for image classification using PyTorch

## Programming Skills

- Data Science for ML/AI: PySpark, SQL, Docker, HDFS, Kafka, Web Scraping, NumPy, Matplotlib
- Systems: Developed cache, heap, and shell simulators using C and Linux libraries, with Bash script testing
- App Development: Ruby on Rails and MySQL for backend management, and HTML/CSS for frontend design
- LLM Implementation: RAG, In-Context Learning, Document Question Answering
- Programming Language Design: Built a Parser for Haskell and Interpreter for BF

## Extracurricular Involvement

UW Track Club

- 2024 Distance MVP, Safety Officer, Authorized Driver, Summer Track Series planning committee

Volunteer Tutoring

- Spring 2022 led science experiments at a local community center through a service learning course
- Spring 2021 worked with the Urban League as a virtual tutor in a 7th grade science class

Hackathons

- Participated in 2022 CheeseHacks hackathon, worked on chatroom interface implementing Spotify API

Podcast Editing

- Worked with the Daily Cardinal Fall 2021 editing for the Student Dive and Soda Talk podcasts
- Produced a podcast interviewing Basil Data founder Jeff Jones for entrepreneurship course

UW Madison StartUp Learning Community

- 2021–2022 member, attended networking events, and completed a nonprofit entrepreneurship course