

Experience

Institute for Cyber Enabled Research - Michigan State University **October 2023 - Present**

Research Consultant

- Spearheaded the deployment of local large language model (LLM) applications for researchers and students
- Engineered and automated GitLab CI/CD pipelines for version control and documentation in a Linux env
- Developed a custom Python package for programmatic report generation, eliminating manual processes and accelerating delivery
- Integrated EasyBuild modules to standardize software installations and simplify environment management

Data Science Institute - University of Wisconsin Madison **May 2022 - August 2023**

Student Researcher | <https://github.com/UW-Madison-DSI/Covid19-Wastewater-Analysis>

- COVID-19 wastewater surveillance research in partnership with Wisconsin’s Department of Health Services and State Lab of Hygiene
- Engineered end-to-end R data pipelines to process COVID levels in wastewater, enabling early detection
- Developed and published a custom R package for streamlined data cleaning, visualization, and statistical modeling—making the workflow fully reproducible on GitHub
- Applied time-series and regression analyses to correlate viral load measurements with case counts

Statistics Department - University of Wisconsin Madison **February 2022 - May 2023**

IT Intern

- Administered Linux servers via SSH, ensuring secure, reliable remote access and real-time analytics
- Orchestrated high-throughput computing workloads using SLURM, optimizing resource allocation
- Gained hands-on expertise in server infrastructure, enhancing department productivity and uptime

Education

Michigan State University Data **August 2023 - May 2025**

Science Master of Science

University of Wisconsin Madison Computer **September 2020 - May 2023**

Science Bachelor of Science

Projects

Deploying Local Large Language Models (LLMs) for Researchers **September 2024 - Present**

Engineered the deployment of running Large Language Models (LLM) locally on ICER's high-performance compute cluster, leveraging open-source local hosting applications. Successfully delivered a robust solution and documentation, with hundreds of monthly users, enabling researchers to explore using LLMs locally on HPCC. This was done using local LLM hosting services such as Ollama, LM Studio, and Open WebUI, along with open-source models such as llama, gemma, mistral, and more.

Henry Ford Health Patient Scheduling **January 2025 - May 2025**

MSU Master of Data Science Capstone

Successfully delivered a machine learning model that achieved 50% better predictions than the legacy scheduling system, improving patient access. We were given a raw dataset and went through the entire data pipeline from exploratory data analysis, feature engineering, model creation, and testing. Delivered a presentation to senior HFH doctors about the benefits and a poster presentation.

Eagle Scout Project **June 2019**

I orchestrated over 40 volunteers, cumulating more than 250 hours of dedicated service. The project's ambition was the construction of two Ga-ga Ball pits at Glacier Edge Elementary School, providing an engaging recreational outlet for children during recess. These objectives were met with resounding success, marking the completion of both pits.