

# Ryan McCormick

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Portfolio: <https://gloppypop.github.io/>

GitHub: <https://github.com/gloppypop>

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## Summary

Physics B.S. candidate with a minor in Computational Mathematics, Science, and Engineering and a strong interest in applying data-driven methods to complex scientific and operational problems. Undergraduate researcher using machine learning to study magnetohydrodynamic turbulence through large-scale simulations and high-performance computing workflows. Experienced program coordinator who uses data to support budgeting, staffing, performance tracking, and long-term planning. Known for bridging technical analysis with practical, real-world decision support.

## Technical Skills

**Programming/Tools:** Python, SQL, Excel, Power BI, Git, GitHub, Linux/Bash, Jupyter, VS Code, L<sup>A</sup>T<sub>E</sub>X, C

**Data/ML:** Pandas, NumPy, SciPy, scikit-learn, PyTorch, data visualization (Matplotlib, Seaborn), Gaussian processes, neural networks, model evaluation

**Methods:** numerical analysis, statistical analysis, linear algebra, tensor operations, data cleaning, HPC workflows (Slurm)

## Experience

### Mid-Michigan Recovery Services

Lansing, MI

May 2023 – Present

*Program Coordinator*

- Use operational and financial data to guide decisions around staffing, performance, and day-to-day program operations.
- Develop and monitor program budgets; collaborate with clinical and administrative teams to improve efficiency and service delivery.
- Hire, train, and mentor staff while leading performance evaluations to maintain accountability and quality of care.

### Evolve Teleservices / MDHearingAid

East Lansing, MI

Apr 2019 – May 2023

*Sales Agent*

- Consistently ranked in the top 10% of sales staff by exceeding weekly performance targets.
- Resolved customer concerns and adjusted communication style to meet diverse client needs while refining sales strategies.

## Research & Projects

### Michigan State University (ICER)

East Lansing, MI

2024 – Present

*Undergraduate Research Assistant — ML for Turbulence/MHD*

- Apply Gaussian process regression and neural networks to analyze magnetohydrodynamic turbulence simulations.
- Work with large 3D datasets, building preprocessing and analysis pipelines in HPC environments.
- Use Python tools (NumPy, SciPy, scikit-learn, PyTorch) to clean data, engineer features, and evaluate model performance.

### Mid-Michigan Recovery Services

Lansing, MI

2023 – 2025

*Two-Year Revenue Analysis & Utilization Analytics*

- Analyzed revenue trends across providers and locations to identify service gaps and demand patterns.
- Shared findings with leadership to support budgeting decisions and resource planning.

### Mid-Michigan Recovery Services

Lansing, MI

2023 – 2024

*Employee Utilization Analytics*

- Examined multi-year service and revenue data to assess staff utilization and support performance-based compensation decisions.
- Built clear summary reports and visualizations to communicate findings to non-technical stakeholders.

## Education

### Michigan State University

East Lansing, MI

Expected May 2026

*B.S. Physics; Minor: Computational Math, Science, and Engineering*

### Jackson College

Jackson, MI

May 2023

*Associate of Science (Mathematics Transfer Program)*

## Certifications

### IBM – Python for Data Science

Coursework covered Python fundamentals, data structures, and introductory data analysis.

### Adult and Pediatric First Aid/CPR/AED – American Red Cross