Michael C. Eaton

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Work experience

Teaching Assistant - Rich Media Web Development **Jan '26 - Present**

Rochester Institute of Technology | ROCHESTER, USA

- Provide **technical mentorship** for undergraduate students, utilizing advanced **debugging techniques** to resolve complex logic errors and unblock student progress during development cycles
- Enforce industry-standard engineering practices during **code reviews**, emphasizing proper version control (Git) workflows, modular architecture, and **clean code principles** to prepare students for professional roles

AI Trainer - Coding Expert **Oct '25 - Present**

Confidential | REMOTE

- Conducted line-by-line technical QA on **500+ Python and Java code snippets**, debugging syntax errors and edge cases to ensure training data functionality
- Evaluated model reasoning across **5+ turn conversations**, ranking outputs based on logical consistency, hallucination rate, and adherence to **complex prompt constraints**
- Maintained a **99% accuracy rating** on technical evaluations, exceeding the project's quality threshold

Developer - Sector Down **Aug '24 - Dec '24**

Rochester Institute of Technology | ROCHESTER, NY

- Engineered a custom low-level networking layer from scratch, implementing optimized message serialization to maintain **sub-second state synchronization for up to 20 concurrent clients**.
- Developed an internal data entry tool to replace error-prone manual CSV editing, reducing the time required to input complex card stats and art assets by **approx. 80%**

Development Team Lead - Peaceland **May '24 - Dec '24**

Rochester Institute of Technology | ROCHESTER, NY

- Led a cross-functional team of **20 developers and designers**, implementing Agile workflows (Trello) to coordinate feature integration and deliver a playable Unity prototype on a 4-month timeline

Education

Data Science | Masters of Science **Aug '25 - Present**

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- **GPA:** 4.0
- **Relevant Coursework:** Applied Statistics, Machine Learning, Simulation Optimization, Database Systems, Digital Twins (Capstone).

Game Design and Development | Bachelors of Science **Aug '22 - Dec '24**

Rochester Institute of Technology | ROCHESTER, NY

- **Awards:** Dean's List (All Semesters 2022–2024)

Skills

- **AI & Machine Learning:** Python (Scikit-learn, Pandas, NumPy), Deep Reinforcement Learning (DRL), Large Language Model (LLM) Evaluation, NLP Context Analysis, PyTorch, Tensorflow
- **Simulation & Systems:** Unity3D (C#), Digital Twins, Linear Programming (LP), Stochastic Modeling
- **Development & Tools:** Git/Version Control, SQL (PostgreSQL), API Integration (REST), AWS, React

Projects

Analysis of Deep Reinforcement Learning in Stochastic Job Scheduling **Dec '25 - Present**

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- Designing a high-fidelity Unity3D Digital Twin to simulate **stochastic industrial environments with 100+ dynamic variables**.
- Architecting a DRL agent framework (using Unity ML-Agents) to target a **hypothetical 15% improvement** in resource allocation compared to greedy heuristics
- Defining an experimental pipeline to stress-test agent recovery against **randomized failure scenarios** (e.g., machinery breakdown, supply chain lag)

Resource Allocation & Production Optimizer **Sep '25 - Present**

- Formulated a **Linear Programming (LP)** model to solve complex resource allocation problems
- Engineered and deployed a **full-stack web application** that interfaces with the optimization engine, allowing users to define production targets and receive mathematically optimal factory schemas

Diabetic Patient Readmission Modeling **Oct '25 - Dec '25**

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- Designed an end-to-end Machine Learning pipeline to predict hospital readmissions, handling data imbalance and feature engineering to maximize cost savings and improve patient care
- **Conducted a cost-benefit analysis** using a financial cost matrix, identifying an optimal decision threshold that **projected an average saving of $37.69 per patient** (approx. $37k per 1,000 admissions) via targeted intervention