Mathom Johnson

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Education

University of Wisconsin—Madison Madison, WI

B.S. Computer Science, B.S. Data Science — **GPA: 3.92/4.0** *Sep. 2023 - May 2027*

Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Linear Algebra, Discrete Math, Data Science Modeling, Big Data Systems, Time Series Analysis, Intro to Artificial Intelligence

Experience

Software Engineer Intern Jun. 2026 – Aug. 2026

U.S. Bank *Minneapolis, MN*

- Investigated a PostgreSQL connection pooling incident caused by mismatched client/server pooling configs leading to zombie connection buildup and app outages; developed standardized pooling modules to prevent recurrence across app dev teams
- Built a Python capacity monitoring tool that analyzed usage across 1,000+ Fabric workspaces to identify inefficient workloads, enabling proactive outreach to reduce unnecessary resource consumption
- Researched emerging AI capabilities across Microsoft Fabric including enterprise data security implications, and presented findings to over 1,300 employees through internal user group meetings

Co-Founder & Engineer Oct. 2025 – Present

Praxora Education, Inc. *Madison, WI*

- Co-founded and serve on the board of directors of an incorporated ed-tech startup that has secured $30,000 in funding; contributing to creative direction, product design, and technical strategy alongside the founding team
- Designing the core software and backend architecture (FastAPI, Supabase, Railway, Vercel), making foundational stack decisions and implementing key infrastructure that has shaped the platform
- Shipping full-stack features including REST APIs, Redis rate limiting, edge functions, and transactional email

Undergraduate Researcher, Embedded Systems Sep. 2025 – May 2026

Morgridge Institute for Research *Madison, WI*

- Designed and implemented advanced control dashboard features to regulate cathode heaters and high-voltage components in a research-grade 3D metal printer
- Developed and executed rigorous tests of hardware–software interfaces to validate reliability, enforce safety protocols, and ensure reproducible system performance

Undergraduate Researcher, Data Analysis Feb. 2025 – May 2026

Ehrlich Lab, University of Wisconsin—Madison *Madison, WI*

- Developed Python/MATLAB scripts and analysis pipelines to process behavioral data collected from experiments, directly supporting a life sciences research initiative
- Designed and implemented experimental hardware using Arduino and IoT components to develop a new larval zebrafish behavioral assay, demonstrating strong problem-solving skills from concept to execution
- Engineered and deployed a Machine Learning-driven CLI tool to automatically classify key behavioral movements from tracking data, increasing data processing speed by over 2x

Software Development Intern May 2025 – Aug. 2025

WEC Energy Group *Milwaukee, WI*

- Interpreted UML diagrams, database schemas, and interface classes outlining the architecture of a data pipeline
- Collaborated with a cross-functional agile team to develop and deploy a robust pipeline that efficiently manipulates, aggregates, and stores over 2,200 data objects on a daily basis
- Designed and implemented comprehensive unit and integration test suites, ultimately raising code coverage to 92%
- Improved adherence to software development best practices and design patterns by refactoring and modularizing core functions, enhancing code reusability and testability

Technical Skills

Languages: Java, Python, C, C#, JavaScript, TypeScript, HTML/CSS, R, PowerShell, MATLAB, SQL, Assembly
Frameworks & Tools: React.js, Node.js, Ollama, ChromaDB, Flask, Django, .NET, Git, GCP, Redis, Supabase
Hobbies & Interests: Paddleboarding, AI Tools, Gregory Alan Isakov, Soccer, Tiny Houses