Mason Maeder

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EDUCATION

University of Wisconsin-Madison | Madison, Wisconsin   September 2022 – **May 2026**
Bachelor of Science: Computer Sciences, Information Science
- Certificates: Digital Studies, Game Design, Leadership
- Courses: Algorithms, Artificial Intelligence (AI), Big Data Systems, Database Design, Operating Systems

WORK EXPERIENCE

UW School of Medicine and Public Health, Informatics Student Developer | Madison, Wisconsin   June 2023 – Present
- Architected an agentic AI system using Atomic Agents and Instructor AI to translate natural language prompts into executable SQL queries, allowing non-technical research staff to directly and efficiently access clinical data stored in Delta Tables
- Built a Retrieval-Augmented Generation (RAG) pipeline by integrating Elasticsearch as a vector database, enabling the AI tool to provide context-aware responses through a FastAPI interface
- Migrated the Airflow database from a traditional Postgres cluster to CloudNativePG, enabling a more resilient backup and restore workflow using volume snapshots in preparation for a major system upgrade
- Developed a DeltaTable upsert task in Airflow by leveraging the KubernetesPodOperator to run workloads in custom Docker containers, improving deployment security and resource efficiency by restricting task environments to only access essential dependencies
- Developed a Python-based automation script with Selenium to streamline daily OnCore functions, increasing data accuracy by minimizing the risk of manual entry errors by clinical researchers

CVS Health, Operations Manager | Madison, Wisconsin   May 2024 – Present
- Directly manage a team of 10 employees, overseeing operations including weekly scheduling, payroll, and performance management to optimize efficiency of shifts and improve the store's financial results
- Optimize the customer-focused inventory replenishment process in a high-volume retail environment, implementing strategies to improve product availability and reduce overstock
- Screen, interview, and select qualified candidates for store supervisory and pharmacy technician positions, contributing to developing a well-performing team

State of Wisconsin Department of Administration, Mainframe Intern | Madison, Wisconsin   June 2025 – August 2025
- Wrote and automated the generation of a once-daily report to track IBM z16 CPU consumption trends using REXX and integrated the solution into a scheduled JCL job using Control-M to notify the mainframe performance team of any overages
- Developed a post-processing script using Python, which uploads z/OS report datasets to email and SharePoint, automating report distribution to centralize reporting and streamline the onboarding process for new mainframe professionals
- Researched and presented to State of Wisconsin Administrators on the application of Infrastructure as Code (IaC) principles to mainframe environments, analyzing tools including Ansible, Terraform, and z/OSMF Workflows to provide recommendations for modernizing system deployment and infrastructure management

LEADERSHIP & INVOLVEMENT

Curling Club of UW-Madison, Founder and President | Madison, Wisconsin   September 2022 – Present
We won three consecutive National College Curling Championships in 2024, 2025, and 2026. As president, I provide coaching and skill development for 15+ students during weekly practices. I also handle all administrative duties, including managing a $13,000+ annual budget, scheduling events, and presenting to the Sport Club Council to secure funding.

SKILLS

Technical: Python, Java, C, Job Control Language (JCL), REXX, z/OS (IBM Z Xplore - Advanced Certificate), TSO/ISPF, Git, Operating Systems, SQL, YAML, Docker, Kubernetes, Apache Airflow, Relational Databases, PostgreSQL, CloudNativePG, Artificial Intelligence (AI), Elasticsearch, LLMs, FastAPI, Selenium, Linux, Data Structures, Algorithms, React, HTML, CSS, Microsoft Office, Microsoft Excel
Soft: Leadership, Team Management, Project Planning, Communication, Presentation Skills, Financial Management, Budgeting, Inventory Management, Problem-Solving, Coaching, Interviewing