

Zach Wetmore

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EDUCATION

University of Minnesota, College of Science and Engineering
Bachelor of Science, Mathematics-Actuarial Science Emphasis
Bachelor of Science, Computer Science
Minor, Statistics

Minneapolis, MN

May 2025 - Expected
GPA: 3.8

TECHNICAL SKILLS & ACTUARIAL EXAMS

Programming & Software Tools: Python, SQL, C/C++, C#, Java, JavaScript, OCaml, Matlab, Excel, Docker, Django
Machine Learning & AI Tools: NumPy, Pandas, scikit-learn, Matplotlib, Seaborn, Generative AI (OpenAI, Cursor, etc)
Version Control Systems: Git/Github, Subversion
Actuarial Exams Passed: Financial Math (FM), Probability (P)

WORK EXPERIENCE

Allianz Life

Golden Valley, Minnesota

Actuarial Analyst - Modeling & Systems

May 2025 - Present

Actuarial Internship - Modeling & Systems

May 2024 - May 2025

- Used Risk Agility FM/C++, Excel, and actuarial math to develop and optimize models within the software development lifecycle in a Scrum environment, focusing on extensibility, maintainability, and efficiency.
- Enhanced a Django-based web application supporting a parallel processing engine for running model projections.
- Developed and documented a standardized toolkit and workflow for actuarial software development, improving consistency, collaboration, and onboarding across the modeling team.

Colder Products Company (CPC)

Arden Hills, Minnesota

Software Engineering Co-Op

Jan 2024 - April 2024

- Designed and implemented RFID device testing GUIs in C# using Windows Forms, applying a layered architecture similar to MVC to manage XML serialization.

PROJECT EXPERIENCE

Football Scouting Report

January 2025 - Present

- Developed and maintained a Python-based data analysis pipeline, automating ETL processes for complex sports data while ensuring data integrity through robust cleaning and preprocessing routines.
- Applied advanced statistical analysis and visualization techniques (Pandas, Matplotlib, SciPy) to derive actionable insights, leveraging hypothesis testing, and data visualization to enhance decision-making.

Spotify-Apple Music Program

November 2024

- Developed a Python application to transfer playlists between Apple Music and Spotify, enabling importing, creating, and formatting. Integrated AppleScript and Spotify's Web API to automate playlist migration and song addition.
- Engineered a multi-threaded solution for adding songs to Spotify playlists, with additional optimizations for managing API rate limits effectively.

Custom Shell Program, 4041 Introduction to Operating Systems

October 2024

- Developed a custom Unix shell in C, implementing features such as signal handling, job control, and command execution, enhancing system interaction and process management capabilities.
- Leveraged Docker to containerize the shell application, ensuring consistent execution environments and simplifying deployment across different systems.

LEADERSHIP EXPERIENCE

Big Brothers Big Sisters, Big Brother, 2018 – Present

Weight Room Instructor, Medford High School, Summer 2020