Samuel Breider

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EDUCATION

University of Minnesota   *Minneapolis, MN*
Bachelor of Science in Computer Science, ***GPA: 3.83***   Aug. 2022 - May 2026

EXPERIENCE

Teaching Assistant   Jan. 2025 – Present
University of Minnesota   *Minneapolis, MN*
- Leading labs and office hours to assist **180+** students in learning the principles of computer science in **C++**.
- Enhancing my own programming and problem-solving skills by collaboratively resolving students' bugs and roadblocks.

Software Development Intern   May 2024 – Aug. 2024
WEC Energy Group   *Milwaukee, WI*
- Engineered *Application Manager*, a database management tool handling **CRUD** operations on software logs, archives and metadata.
- Contributed to development of *Watchdog*, a service providing constant status feeds for over **200** high-impact programs.
- Utilized **VB .NET** and **Microsoft SQL Server** to deliver scalable, user-friendly solutions that improved the operational efficiency of more than **7,000** employees.
- Refactored and streamlined legacy **SQL** procedures, reducing processing times by up to **40%**.
- Managed large-scale workflows using **Azure DevOps** and ensured version control through **Git**.

PROJECTS

Pro Football Reference API | *Go, Postman, Docker*
- Built an external API servicing GET requests to **6000+** Pro Football Reference data tables.
- Documented, tested and managed API construction using **Postman**.
- Deployed project as a **Docker** image on an **EC2** instance, automating build and deployment tasks with **Powershell** and **Bash** scripts.

Gopher GeoGuessr | *JavaScript, Next.js, PostgreSQL*
- Co-developed a game in which UMN students explore campus by guessing the locations of photos taken around Dinkytown.
- Designed user authentication system for **200+** active users, storing stats, game history, and user information in a **PostgreSQL** database.
- Engineered game modes, visual components and player touch-points in **Next.js** and **Tailwind**.

Package Delivery Simulation | *C++, Docker, Git, UML*
- Contributed to a **Scrum**-based workflow developing a simulation model for package delivery drones.
- Optimized travel paths across a graph-based coordinate plane using **A*** and **Dijkstra's** algorithms, which decreased initial routing times by over **40%**.
- Crafted detailed **UML** diagrams and **EARS** requirements documents, enhancing clarity in system specifications and reducing development cycle overhead.

SKILLS

Languages: Go, SQL, VB .NET, C++, C, Java, JavaScript, Python
Frameworks / Libraries: .NET, React, Next.js, Node.js, PyTorch, Flask, Pandas, Tailwind CSS, goquery
Tools: Docker, Git, Github, SQL Server Management Studio, Visual Studio, EC2

OTHER

Social Coding, *Member*: Led a network of programmers in developing *Gopher Major Planner*, *Gopher GeoGuessr* and other software solutions with a positive impact on our community.

UMN Centennial Scholars, *Scholarship Recipient*: Immersed myself in a scholarship program full of students who share my goals for innovation, achievement, and diversity in the professional and academic world.