Brett M Hixon

Terre Haute, Indiana 47803 hixonbm@rose-hulman.edu bhixon.dev (812) 239-4099

Summary: Junior Computer Science major with minors in Cybersecurity and Artificial Intelligence at Rose-Hulman with a 3.98 GPA, driven by an innovative and proactive nature. Eager to apply my rigorous theoretical and practical understanding in full-stack and systems development. Experienced in languages like C, C#, JavaScript, and Java, and modern development frameworks.

Education:

Bachelor of Science, Computer Science **May 2027**
Rose-Hulman Institute of Technology, Terre Haute, IN GPA: 3.98/4.0
Minors in Cybersecurity, Artificial Intelligence, and Japanese
Related Courses: Software Requirements Engineering, Software Design, Computer Architecture II, Machine Learning, Computer Networks, Operating Systems, Database Systems, Theory of Computation

Skills:

Software: Java, C, C#, ARM Assembly, JavaScript, Verilog, Python, Lua, RISC-V Assembly, Scheme
Frameworks & Technologies: Bootstrap, .NET (ASP.NET Core), Entity Framework Core, SQL, React, React Native, HTML, CSS
Systems: Windows, macOS, Linux
Language: Limited Working Proficiency in Japanese and Elementary Spanish

Experience:

Rose-Hulman Ventures **January 2025-May 2025**
Software Engineer Intern

- Researched and practiced multiple web and mobile app frameworks such as React/React Native, ASP.NET Core, and Entity Framework Core
- Created internal documentation for future engineer interns to reuse when getting started
- Gained experience in full-stack app development and integrated databases in a collaborative environment
- Refactored data retrieval methods for an internal inventory management system

Rose-Hulman Institute of Technology **September 2024-Present**
Teaching Assistant

- Assisted students with C and ARM Assembly programming-related questions during in-class lab
- Graded homework assignments for Introduction to Web Development, Introduction to Databases, Introduction to Systems Programming, and Theory of Computation

Projects:

Scheme Interpreter **September-November 2025**

- Implemented an interpreter using Racket Scheme to interpret a subset of standard Scheme
- Provided basic and advanced syntaxes and primitive procedures
- Designed a user-defined macro expansion system

Game Sniper Database Application **April-May 2025**

- Developed a graphic application with Java Swing integrated with Microsoft SQL Server to provide dynamic video game data analysis solutions for an array of end users
- Leveraged the Node.js Playwright library to efficiently extract external platform data

Threading Library in xv6 **February 2025**

- Implemented a pthread-like threading library for the xv6 operating system using C
- Developed synchronization mechanisms utilizing spinlocks and ensured proper scheduling of user-space threads

Honors:

Heminway Scholar May 2025