Brett M Hixon

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Summary: Junior Computer Science major at Rose-Hulman with a 3.97 GPA driven by an innovative and proactive nature. Eager to apply my rigorous academic 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: 3.97/4.0
Minor in Japanese (in progress)
Related Courses: Introduction to Web Programming, Design and Analysis of Algorithms, Operating Systems, Introduction to Database Systems, Computer Architecture I

Skills:

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

Projects:

Game Sniper Database Application   **April-May 2025**
- Created a Java Swing application that connects with a Microsoft SQL Server instance to provide video game information to players and developers
- Scraped Steam utilizing the Playwright API for initial population 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

Virtual Bulletin Board Web App   **June-August 2024**
- Used HTML and JavaScript to develop a frontend program for a virtual bulletin board
- Utilized Firebase for backend operations such as user authentication and database storage
- Enhanced frontend appearance using Bootstrap for styling

Side-Scrolling Arcade Game   **January-February 2023**
- Designed and implemented a Java-based arcade game using Swing for the graphical interface
- Developed custom game physics, collision detection, and event handling

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**
Systems Programming Teaching Assistant
- Assisted students with C and ARM Assembly programming-related questions during in-class lab

Honors: Heminway Scholar   May 2025