# Brett M Hixon

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**Summary:** Junior Computer Science major at Rose-Hulman with a 3.98 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: 3.98/4.0
Minor in Japanese (in progress)
*Related Courses: Programming Language Concepts, Operating Systems, Database Systems, Software Requirements Engineering, Software Design, Computer Architecture II, Natural Language Processing*

## 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:** Elementary Japanese and 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**
*Systems Programming Teaching Assistant*

- Assisted students with C and ARM Assembly programming-related questions during in-class lab

## Projects:

**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

**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

## Honors:

Heminway Scholar May 2025