

# 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  
**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**