

## Benjamin R. Johnson

LinkedIn Profile: Benjamin-Johnson-IA

Website: benjamin-johnson.dev

I am a driven and detail-oriented computer engineer with experience developing software applications for production use. My academic journey and professional experience have given me a comprehensive understanding of computer functionality, from low-level transistor layouts and VLSI design, to computer architecture, operating systems, and modern software development. I am passionate about pursuing personal projects, including a custom ray-tracer and a high-speed circuit board for graphics processing.

### EDUCATION

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**Iowa State University**, *B.S. in Computer Engineering with Minor in German* Ames, Iowa **Expected May 2025**

- **GPA:** 3.09/4.0, Dean's List
- **Relevant Coursework:** Computer Graphics, Electronic Systems Design, Signal Integrity for High Speed Design

**Des Moines Area Community College** | Des Moines, Iowa **August 2018 – May 2021**

- **GPA:** 3.63/4.0, Dean's List (3 semesters) and President's List (1 semester)

**Valley High School** | West Des Moines, Iowa **August 2017 – May 2021**

### WORK EXPERIENCE

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**Software Engineering Intern**, 76th Software Engineering Group (SWEG), United States Air Force **May 2024 – August 2024**

- Explored various technologies to develop a prototype system for managing a fleet of drones; constructed a proof-of-concept model for "over the air" updates for a pair of demo drone boards **May 2023 – August 2023**
- Setup an environment of test machines to explore various cloud tools
- Provided clear documentation on the benefits and drawbacks of different technologies. Established steps to allow others to reproduce sample environments.

**Software Engineering Intern**, Hy-Vee Corporation **May 2022 – August 2022**

- Designed custom CI/CD pipelines to migrate application deployment to a more flexible system [Concourse CI]
- Assisted in the development of C# .NET applications for maintaining Electronic Shelf Labels; debugged applications and SQL databases to identify and resolve issues.

### RESEARCH EXPERIENCE

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**Undergraduate Physics Researcher**, Iowa State University **January 2022 – May 2022**

- Analyzed particle collision data produced by the Belle 2 experiment; tasked with finding a solution to efficiency problems occurring in the outermost layer of the particle detector; developed Python scripts to improve detection efficiency.

### SKILLS

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- Programming Languages: C, C++, Rust, Java, Python, C#, Typescript
- CAD: KiCAD, Fusion 360

### LEADERSHIP & ACTIVITIES

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**ISU Clubs:** Game Development Club, ICPC (competitive programming), Running Club **Spring 2022 – Present**

**Cadet**, Air Force ROTC **August 2023 – May 2024**

**Eagle Scout**, Scouting (formerly Boy Scouts of America), Troop 888 **January 2018**