

ETHAN GRIESMAN

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EDUCATION

Iowa State University

Ames, IA

B.S. Computer Engineering

Expected Graduation: May 2026

- Coursework: Data Structures, Algorithm Analysis, Operating Systems, Computer Architecture, Software Development, Software Project Management, Quantum Computing

TECHNICAL SKILLS

Programming: Python, Java, C, C++, MySQL, HTML/CSS, JavaScript, MATLAB, Bash

Hardware: FPGAs, Arduino, 3D printing, dataloggers, multimeters, oscilloscopes

Tools: JIRA, Confluence, BitBucket, Docker, Artifactory, GitLab, Linux, Android Studio, Wireshark

PROFESSIONAL EXPERIENCE

RTX - Collins Aerospace

Cedar Rapids, IA

Systems Engineer Co-Op

Jan 2025 – Aug 2025

- Conducted hardware-in-the-loop (HIL) regression testing, integrating physical components with simulation tools to assess subsystem behavior under mission-like conditions.
- Worked alongside principal engineers to integrate traceability for 700+ requirements into test procedure workflows, improving verification efficiency and ensuring timely passage through Preliminary Design Review (PDR).
- Configured and maintained JIRA workflows, ensuring streamlined issue tracking and execution.
- Built Python-based log analysis tool to process over 10,000+ CSV records per aircraft pod, enabling automated parsing and evaluation of avionics boot and mission data.

Hy-Vee, Inc.

Des Moines, IA

SAP Data Intern

May 2024 – Aug 2024

- Managed SQL queries for real-time data processing from over 304 stores across 8 states, handling 100,000+ records pertaining to procurement, manufacturing, and supply chain management.
- Contributed to new ERP platform deployment through migration and integration of data from legacy systems.

Iowa State University Centers for Building Energy Research (CBER)

Ames, IA

Undergraduate Research Assistant

Sept 2022 – May 2024

- Designed mobile alert system for elderly and low income residents in Des Moines, IA to receive warnings during extreme heat events, enhancing community preparedness.
- Developed visualizations of Computational Fluid Dynamics (CFD) data collected from local high schools, providing insights into airflow patterns and optimizations within HVAC systems.

SOFTWARE ENGINEERING PROJECTS

Workflow for UMI-E+ Data Integration | Python, Powershell, Visual Studio, GitHub

2024

- Developed scalable Python program to automate extraction of geometric data generated in 3D modeling of urban locations throughout downtown Des Moines, IA.
- Produced over 50,000 new files with precise tree parameters, allowing more detailed analyses of shading and moisture effects on urban building energy dynamics.
- Presented work at National Conference for Undergraduate Research in Long Beach, California.

Movie Magnet Android App | Java, Android Studio, MySQL, REST API

2023

- Guided front-end development for full stack app where users locate friends with similar movie interests.
- Employed Agile/SCRUM methodology to drive fast-paced, iterative development cycles, resulting in increased flexibility and continuous improvement for application.
- Maintained CI/CD pipelines and systems testing on core app features across multiple use cases, ensuring application integrity and seamless, quality user experience.

Single-Cycle MIPS Processor Pipeline | MIPS Assembly, VHDL, ModelSim

2024

- Built single cycle MIPS CPU from scratch using assembly and VHDL.
- Integrated pipeline stages (IF, ID, EX, MEM, WB) with hazard detection and forwarding units to optimize instruction throughout and resolve data/control hazards.
- Compared performance with non-pipelined version, demonstrating significant reduction in clock cycles.