

# Austin Rognes

Active Secret Security Clearance

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## EDUCATION

### Iowa State University B.S. Software Engineering, December 2022

- Minor in Cyber Security.
- GPA: 3.31

## WORK EXPERIENCE

### Northrop Grumman, San Antonio, TX: Associate Embedded Software Engineer

January 2023 - Present

- Worked on scrum sprints using Atlassian Jira.
- Collaborated on multi-repository C++ projects using Gitlab as well as pipeline testing.
- Gained a conceptual understanding of synchronous and asynchronous LADAR camera intricacies from domain experts.
- Refactored an asynchronous LADAR camera system to also handle synchronous camera input.
- Designed a multithreaded class architecture to handle camera frame translation from asynchronous to synchronous input.
- Leveraged Matlab to convert camera frames between FPGA output formats.
- Setup GoogleTest for unit testing and built a separate C++ application for end to end testing.

### Hy-Vee, Grimes, IA: Software Engineering Intern

May 2022 - December 2022

- Pair programmed to add Novavax vaccination to the pharmacy website and server.
- Explored full-stack development with C#, React, TypeScript and Apollo GraphQL.
- Collaborated on sending vaccination data to a healthcare company API, reducing faxing costs by over 90%.
- Identified and resolved an application wide bug by extending the built in JavaScript Date object to mirror MomentJS.
- Ensured WCAG 2.1 compliance was upheld on every vaccination form page.
- Implemented activation toggles for new COVID vaccines for safe and incremental releases.
- Deepened my understanding of Git, testing ideologies, and Agile methodology.

### Iowa National Guard: Human Resources Specialist, Sergeant/E5

February 2017 - Present

- 12 month deployment overseas as an air defense battle management system operator.
- Experienced working in IPERMS and IPPSA while in the Joint Force Headquarters out of Camp Dodge.
- Performed secretarial duties including mailing letters and accounting for equipment while working in Fort Dodge.
- Integrated into 3 different teams for 3 months each during deployment.
- Operated, maintained, and trained other soldiers on air defense systems.

## PROJECTS

### Collins Aerospace: Simultaneous Call Transmission

January 2022 - December 2022

- Created an ML model that detects multiple concurrent radio transmissions with 4 other classmates.
- Collaborated with 3 electrical engineers to simulate isolated and interfering aircraft radio transmissions.
- Setup CI/CD to generate new training data every time radio simulation was modified.

### Keyboard

April 2022 - August 2022

- Designed and manufactured a split, ergonomic, 42 key, bluetooth keyboard pcb using KiCad.

### Affordable Housing

March 2017 - April 2017

- Designed an affordable house that was built in Des Moines, IA using Autodesk Revit for the [Polk County Housing Trust Fund](#).

## SKILLS

### Programming Languages

- Highly Skilled in JavaScript, TypeScript, Python, C and C++.
- Fluent in SQL and NoSQL languages, C#, .NET, PowerShell, HTML/CSS, Java and VHDL.

### Tools and Frameworks

- Highly Skilled in Git and Object Oriented Programming.
- Experience with Linux, React, Sveltekit, Firebase, GraphQL, Vim, Jira and plenty more.

### Certifications

- [CS50x online Harvard class](#): Introduction to Computer Science 2020.

## ACTIVITIES

- COMS 309 Fall 2021: Top programmer of the semester award.
- Ran the 2019 Boston Marathon in 2:51.20. Placed 1203 out of 27360 total runners

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