# **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

 $^{\circ}$  Worked on scrum sprints using Atlassian Jira.

- $\circ$  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.
- $^{\circ}$  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.
- $\circ$  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

- 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.
- ${}_{\circ}$  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: Sergeant/E5

- $^{\circ}$  12 month deployment overseas as an air defense battle management system operator.
- $\circ$  Integrated into 3 different teams for 3 months each during deployment.
- $^{\circ}$  Operated, maintained, and trained other soldiers on air defense systems.

# PROJECTS

#### Collins Aerospace: Simultaneous Call Transmission

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

# Keyboard

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

# Affordable Housing

• 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

• <u>CS50x online Harvard class</u>: Introduction to Computer Science 2020.

# ACTIVITIES

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

February 2017 - Present

May 2022 - December 2022

January 2022 - December 2022

April 2022 - August 2022

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March 2017 - April 2017