

# Taha Afzal

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## WORK EXPERIENCE

### Software Engineer, CNH

May 2022 – Present | Sioux Falls, SD

- Spearheading the development of Viper 4+'s embedded system software in an Agile environment, utilizing Qt and C++.
- Enhancing a file conversion library expanding support to JSON, CSV, and XML formats, ensuring 100% error-free conversions.
- Collaborating with the team to transition the Viper 4+ build system from qmake to CMake, reducing build times by 25%.
- Debugging the multi-threaded software using gdb-multiarch, analyzing embedded system logs, and documenting code with Doxygen.
- Improving release cycles by implementing and maintaining CI/CD pipelines using GitLab CI, automating build, test, and release workflows.

### Software Engineer Intern, Raven Industries, Inc.

Sep 2021 – May 2022 | Sioux Falls, SD

- Implemented on-device creation of geospatial vector data format shapefiles for the multiline feature in Raven Operating Software.
- Developed this highly-requested feature for the Field Computer product line using Qt and C++ in an Agile environment.
- Improved the multiline feature to make it more user-friendly and easier to discover enabling farmers to save 60% of their time.

### Software Engineer Intern, Raven Industries, Inc.

May 2021 – Aug 2021 | Sioux Falls, SD

- Collaborated in an Agile team of 8 to implement single sign-on for all 4 customer-facing apps for a secure user-authorization process.
- Undertook displaying telemetry and generating alerts with Grafana to monitor load and throughput of critical services more closely.
- Streamlined infrastructure with Terraform, reduced moving parts, refactored code, and improved documentation.

### Data Analyst Intern, Diamond Mowers

Aug 2020 – May 2021 | Sioux Falls, SD

- Utilized Tableau and R to visualize sales data to aid 3 top executives in making decisions about the company's performance.
- Wrote analytical reports highlighting underperforming regions for all 3 product lines while identifying underlying performance issues.
- Conducted 200+ hours of market research to determine users' key pain points as well as the company's competitive analysis.

### Software Engineer Intern, Spidreye

Feb 2020 – Jun 2020 | New York, NY

- Led a team of 4 to design, develop, deploy, and test a property-review website that gained 75+ users in the first month after launch.
- Implemented Google Maps API to support location autocompletion when a user is searching for properties for faster results.
- Utilized Firebase Authentication for user profiles and sending automated welcome emails through Mailchimp.

## SKILLS

C++ | Python | Rust | Swift | JavaScript | SQL | Bash | ReactJS | Qt | QML | Terraform | AWS | Docker | Git | Java

## EDUCATION

### BA Computer Science and Data Science, Augustana University

Aug 2018 – May 2022 | GPA: 3.75

### Honors and Awards

Global Leader Scholar, Slate Ronning International Scholar, Fred C. and J. Marie Christopherson Scholar, AURAFA Award Recipient

## PROJECTS

### Uni Go, Founder and Developer

Oct 2023 – Present

- Leading the re-branded development of Ridesio 🔄 to bring an affordable, and communal mode of transportation to college campuses.
- Collaborating with 3 college campuses to integrate Uni Go, delivering a tailored solution that meets the unique needs of each college.

### Health Memo, Tech Lead 🔄

Oct 2020 – Nov 2020

- Led a team of 3 to develop an iOS app to help the elderly manage their chronic diseases and share regular updates with their doctor.
- Utilized EMRs and Google's Text-to-Speech and Speech-to-Text to create a personalized experience for patients.
- Won \$9,000 along with an invitation to work with engineers at Sanford Health for further research and development of the project.

## LEADERSHIP AND AFFILIATIONS

### UnderdogDevs, Mentor

Dec 2023 – Present

- Serving as a mentor to aspiring developers who are either formerly incarcerated or from an economically disadvantaged background.
- Conducting weekly meetings with mentees to offer coding practice, interview preparation, resume analysis, and encouragement.

### Office of Diversity and Inclusion, Diversity Peer Mentor

May 2020 – Aug 2021

- Facilitated 10+ educational programs to increase academic, social, and professional opportunities for underrepresented students.
- Increased students' awareness and cultural competency through 1-on-1 mentorship.