

# Taha Afzal

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## WORK EXPERIENCE

- Software Engineer**, Raven Industries, Inc. May 2022 – Present | Sioux Falls, SD
- Spearheading the development of the Raven's Viper 4+ embedded system software in an Agile team, utilizing Qt and C++.
  - Specifying, architecting, prototyping, developing, and testing applications while consistently following best practices.
  - 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 Viper 4+ system software using gdb-multiarch, analyzing embedded system logs, and documenting code with Doxygen.
- 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

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

## 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.