

Alex Ryse

aryse54@gmail.com | (509) 992-3778 | [linkedin.com/in/alex-ryse](https://www.linkedin.com/in/alex-ryse) | rysealex.github.io/my-portfolio

Skills

Programming Languages – Java, C/C++, JavaScript, Python, PHP, SQL

Frameworks & Libraries – React, Node.js, Express.js, Flask, jQuery

Tools & Platforms – Git, Docker, Linux (Ubuntu), Firebase, MySQL, Microsoft Office

Education

Bachelor of Science in Computer Science, minor in Mathematics

Central Washington University - GPA: 3.7

September 2022 - Present

Relevant Coursework: Data Structures, Algorithm Analysis, Computer Architecture, Web Development

Experience

Teacher Assistant (Adv Data Str & File Proc), Central Washington University

April 2025 - Present

- Mentored students in applying advanced data structure concepts and file processing techniques under the supervision of the course instructor
- Graded assignments, diagnosed errors in student code, and provided actionable feedback to help debug and improve code quality

Mathematics Tutor, Central Washington University

September 2024 - Present

- Tutored university students and peers in multiple advanced mathematics courses
- Enhanced students' conceptual understanding and challenged students to find solutions on their own
- Helped me develop strong analytical, problem-solving, and communication skills

Projects

Fitness Tracker, (<https://github.com/rysealex/fitness-tracker>)

- Developed a fully functional fitness tracker web application with a React frontend and Python Flask backend, leveraging Docker to create separate Dockerfiles for each service
- Implemented user authentication and features to allow users to update and track personal fitness stats
- Enhanced proficiency in Docker, React, Flask, APIs, and containerized web application architectures

Guitar Store, (<https://github.com/rysealex/guitar-store>)

- Designed a responsive guitar store web application using JavaScript and jQuery, following the Model-View-Controller (MVC) design pattern for maintainable and scalable code
- Built the back end using PHP and integrated SQL for managing product inventory and user data, utilizing MySQL for database management

Wildcat Credit Union, (<https://github.com/rysealex/wildcat-credit-union>)

- Led a three-developer team through the full SDLC to build a banking web application (React), personally developing the Node.js/Express.js backend, RESTful API, and MySQL database
- Engineered Docker containerization and integrated the Google Maps API for an ATM Locator, delivering the project within aggressive time constraints while also providing Git training to the team

Word Cloud Generator, (<https://github.com/rysealex/word-cloud-generator>)

- Created a Python-based tool to generate personalized word clouds based on a user input theme word
- Utilized matplotlib for rendering and implemented an R-tree index for efficient collision detection
- Offers a range of user customization and an interactive word definition displayed on mouse hover