

Rabi Alaya

319-594-6110 | rabi-alaya@uiowa.edu | github.com/ra397 | linkedin.com/in/ralaya

EDUCATION

University of Iowa

Iowa City, IA

BSE in Computer Science and Engineering, Minor in Mathematics

Graduation Date: May 2025

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Embedded Systems, Database Systems, Software Engineering Languages and Tools, Communication Networks, Intro to AI and Machine Learning.

EXPERIENCE

Software Developer

Jun 2024 – Present

University of Iowa College of Public Health, Department of Epidemiology

Iowa City, IA

- Developed and deployed a GUI application in C# using the WPF framework to support data annotation for a research study on youth cycling safety behavior involving 170+ participants and a team of 15 researchers.
- Leveraged agile methodologies to deploy regular updates every 1-2 weeks, adapting the application to continuously meet evolving research objectives based on feedback from annotators.
- Enhanced the CRUD operations by developing a feature that enabled users to update their selections post-annotation, enhancing flexibility for the annotators.
- Resolved critical bugs related to video, audio, and CSV export functionality, improving the user experience and the accuracy of exported data for analysis.

IT Intern

Aug 2023 – Dec 2023

Altorfer CAT

Cedar Rapids, IA

- Provided tech support for hardware and software issues, assisting non-technical users across the organization.
- Troubleshoot network issues, gaining hands-on experience with networking protocols and concepts.
- Collaborated with infrastructure and desktop support teams to escalate and resolve complex issues.
- Created detailed documentation for troubleshooting procedures and user guides to streamline future support.

Network Engineer Intern

Jan 2023 – Aug 2023

University of Iowa Health Care Information Systems

Iowa City, IA

- Supported network engineers in managing a Cisco-based network with 600+ switches and 3500+ access points
- Cleared equipment configurations and updated inventory records to ensure compliance and accurate tracking.
- Assisted a team of field engineers in a project overseeing the replacement of over 350 access points. Provided comprehensive guidance to ensure seamless upgrades.
- Surveyed and analyzed network data using Ekahau software, applying data-driven decision-making to enhance network performance.

PERSONAL PROJECTS

Weight Rack Reservation System | Ruby on Rails, HTML/CSS, PostgreSQL

November 2022

- Developed a Ruby on Rails web app to manage gym rack reservations for university students.
- Utilized RESTful API design, MVC architecture, user authentication, and PostgreSQL for efficient data management.
- Implemented admin controls for real-time rack monitoring and dynamic adjustments.
- Achieved 75% test coverage through unit testing with RSpec and validated functionality with Cucumber.

Text Similarity Calculator | C++

June 2023

- Utilized vectorization techniques to convert documents into numerical representations, excluding stop words.
- Implemented the cosine similarity algorithm to compute similarity scores between vectorized documents, providing the result to the user.
- Project adopted under a 2-clause BSD license by a third party to verify optical character recognition (OCR) software outputs, demonstrating real-world application.

TECHNICAL SKILLS

Languages: Python, Java, C#, Ruby on Rails, HTML5/CSS3/JavaScript.

Testing & QA: Behavior/Test Driven Development (BDD / TDD), RSpec, Cucumber, Capybara, JUnit.

Developer Tools: Git, GitHub, Agile, Jira, VS Code, Visual Studio, Heroku, Chrome DevTools, Postman.