

Riley Morrison

riley2141@gmail.com | Chicago, IL | (630) 335-9709 | rileymorrison.com

Profile:

Experienced engineer adept at building accessible web and mobile applications that are capable of engaging users and efficiently satisfying their needs. Passionate about helping people begin their software development careers through mentorship and promotion of the field.

Skills & Strengths:

Programming: JavaScript/TypeScript, HTML, CSS, React, Vite, Vue, Angular, Jest, Material UI, Python, Django, Chalice, Node.js, Java, C, C#, SQL Server, PostgreSQL, MySQL, Git, AWS, Docker, Kubernetes

Professional: Worked in Agile environment; worked in remote & in-person positions

Education:

Bachelor of Science in Computer Science and Computer Engineering

May 2017

University of Wisconsin–Madison | GPA: **3.7/4.0** | College of Engineering Dean's List all semesters

- Scholarships: Claude and Dora Richardson Scholarship, Academic Achievement Award Scholarship
- Social Media Coordinator for Enlight Fountain Control Group (Software and Hardware Club)
- Scratch Mentor (taught 4th and 5th graders Computer Science through the Scratch language)

Developer Experience:

Cincinnati Children's Hospital

Sept 2020 - Present

Software Engineer II

Cincinnati, OH

- Work with hospital researchers across multiple simultaneous projects to build software applications to assist grant-based medical research projects
- Build the inaugural Ugandan patient registry web application using React, Python, MySQL and AWS for clinicians to electronically enter, manage, and track health information for approximately 5,000 rheumatic heart disease patients
 - Used role based permissions and AWS Cognito to secure patients' health information
 - Designed the app with unique user base in mind, such as clinicians inexperienced with electronic record systems and using a variety of devices
 - Used React service workers to allow parts of the app to function without Internet connection
 - Coordinated with a third party vendor and the Uganda Communications Commission to create an AWS Lambda function that automatically sends SMS messages to remind patients for their next visit
 - Created several dynamic charts with automatic daily updates for administrators to view statistics about success of patient treatment plans
- Build a permissions dashboard with React, Python, Chalice, and AWS that helps research administrators view and manage their projects' users
- Create a research database and interface with Python, Django, and PostgreSQL that allowed users to quickly enter in experiment data and gave administrators the ability to run read-only SQL queries directly
- Utilize Python multithreading and Docker to increase the performance of a natural language processing program

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QBE Insurance Group

May 2017 – Sept 2020

Software Developer

Madison, WI

- Created a system of applications with React and Python that detects when customers are threatened by severe weather events and sends emails to selected customers to provide their policy number and safety information
- Built a chat application with React and Node.js that connects customers to different chatbots and customer service agents using natural language processing to determine their needs
- Investigated industry trends in A.I., web/mobile application design, IoT, and DevOps to develop production applications that help determine direction of company-wide initiatives
- Mentored interns to help them develop their programming skills from different levels of experience
- Lead monthly retrospectives for team to reflect on how we are doing and to look for ways to improve
- Helped with company outreach by coordinating K-12 school visits to Innovation Lab

QBE Insurance Group

May 2016 – May 2017

Software Developer Intern

Madison, WI

- Developed software prototypes in short project periods to prove viability of technology
- Wrote Python scripts on IoT devices for data collection, data packaging, and Wi-Fi connectivity
- Built several web applications meant to convey complicated information in a simple, but meaningful way

Great Lakes Bioenergy Research Center

May 2015 – May 2016

Assistant Developer

Madison, WI

- Developed applications using JavaScript for lab workers to upload and manage large amounts of data
- Designed an iPad app which allowed users to upload plant data while doing field work
- Wrote SQL queries to efficiently retrieve data across several tables

Presentations:

World Congress on Rheumatic Heart Disease | Abu Dhabi, United Arab Emirates

November 2023

Title: Technical Design Considerations For a Web RHD Registry Application For Use In Low-resource Settings

- Presented the patient registry web application developed at Cincinnati Children's Hospital
- Explained technical architecture to non-technical audience

IoT (Internet of Things) Discussion Panel | Madison, WI

February 2020

- Discussed IoT trends and how IoT devices were being utilized in the insurance industry
- Explained risks surrounding botnets and low IoT device security