

Aaron Waller

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EDUCATION

University of Michigan

Bachelor of Science in Computer Science

Ann Arbor, MI

Sep. 2020 – Dec. 2023

EXPERIENCE

Software Engineer

Feb 2024 – Present

Bank of New York

Pittsburgh, PA

- Developed a script in Java that automates the process of converting Excel user data into SQL database updates, saving over 8 hours of manual work per run
- Designed and implemented a feature for scheduling future changes, storing updates in staging tables and utilizing automated SQL scripts to transfer data to main tables upon the effective date
- Leading the enhancement and implementation of automated UI regression tests utilizing Selenium
- Developed a rich text editor enabling bullet points, bold fonts, and super/subscripts. Overhauled UI display, back-end PDF/Word export functionality, and database storage to support enhanced text formatting
- Developed and tested front-end, back-end, full-stack, and database changes in an Agile environment, collaborating closely with diverse business users
- Conducted technical interviews for software engineer candidates and provided mentorship and guidance to interns
- Tools used: Java Spring Boot, ReactJS, Javascript, SQL, Maven, IntelliJ, VSCode, Microsoft SQL Server, Oracle SQL Developer, Github Copilot, App Engine, Splunk, Excel, Jira, Confluence

Software Engineer Intern

June 2023 – August 2023

Bank of New York Mellon

Pittsburgh, PA

- Converted and tested 50+ stored procedures for the new database schema.
- As a member of an Agile development team, created design documents for data migration of a vendor application utilizing a new MSSQL database schema
- Tools used: Microsoft SQL Server Management Studio, LexisNexis Bridger Insight XG4 and XG5, Splunk.

Software Engineer Intern

May 2022 – August 2022

Ultimate Kronos Group

Remote

- Implemented a back-end to pull data from multiple tables, and added an additional column to store employee notes related to each collection. Added front-end features to sort alphabetically or by earliest date, as well as automatically highlighting past-due dates
- Implemented a search bar that would allow users to filter results by tax representative (HTML and CSS). Added an autofill feature and utilized local storage to save a user's search
- Tools used: C#, Javascript, SQL, Visual Studio, Bitbucket, Microsoft SQL Server, Postman API

PROJECTS

Search Engine | Python, Flask, Hadoop, Algorithms (MapReduce, tf-idf, PageRank)

Nov 2023

- Constructed a fully working search engine for Wikipedia pages
- Used a MapReduce model within a simulated version of Hadoop (Madoop) to calculate tf-idf values, which were combined with PageRank scores for each query to produce an effective ordering
- Used a back-end server to query tf-idf values and combine them with pagerank scores, and a front-end server to display the GUI and any search results in order

Wav API | Python, Flask, SQL, SQLite3

Jan 2023

- Constructed POST APIs that allowed users to add wav files to a database
- Developed methods to gather metadata on wav files to store in separate databases as a form of memoization, allowing for quick fetching of said metadata
- Implemented GET methods to fetch a list of wav files sorted by duration, provide lists of metadata for a given file, or download wav files directly to a user's hard drive,

TECHNICAL SKILLS

Languages: Java, Javascript, Python, C#, C++, SQL, HTML, CSS, Bash, C, R

Frameworks: Spring boot, Maven, React, Flask, Hadoop, .Net

Developer Tools: IntelliJ, VSCode, Visual Studio, Unity, Microsoft SQL Server, Oracle Database, Git, Docker, Bash

Libraries: React Quill, PyTorch, pandas, numPy