

STEPHEN COAKLEY

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SKILLS

- **Languages:** Rust, C#, Java, C, C++, PHP, JavaScript, Python, HTML, CSS, SQL
- **Platforms and tools:** Kubernetes, AWS, MySQL, PostgreSQL, SQLite, Redis, Prometheus, Docker, Git
- **Expertise:** Backend web development, concurrency and async programming, text encodings

EXPERIENCE

Widen Enterprises, Inc – Madison, WI

Software Developer

June 2016 – Present

- Replaced aging monolith functionality with large-scale microservices in Java on top of Kubernetes to power existing and new web-based SaaS products that serve over 50 million file previews per day.
- Overhauled file conversion architecture with an event-driven, containerized job orchestrator to increase parallelism and reduce latency for over 500k customer file conversions every day.
- Designed and implemented horizontally-scalable, multitenant-aware work scheduling algorithm which brought conversion delays of 20 minutes or more when under high load down to 2 minutes for 99% of jobs.
- Technologies used include Java, .NET, Rust, SQL, AWS, Docker, and Kubernetes.

University of Wisconsin-Whitewater – Whitewater, WI

Computer Science Peer Tutor

September 2014 – May 2016

- Provided regular walk-in tutoring hours for students where I would give ad-hoc lessons to help give a clearer understanding of course concepts.
- Subjects taught included C, assembly, AI, and computer science theory.

Undergraduate Research Assistant

September 2013 – May 2014

- Developed a Microsoft Word plugin using C# to embed revision control inside Word documents, both by studying the OOXML spec and reverse-engineering files.

PROJECTS

Isahc – github.com/sagebind/isahc

October 2017 – Present

- Open-source async HTTP client for Rust that uses libcurl as an engine. Created by me for personal use, but gradually improved the library as it grew in popularity and gained contributions from other interested developers. It now has over 1 million downloads.

EDUCATION

University of Wisconsin-Whitewater

September 2013 – May 2016

Bachelor of Science (B.S.) in Computer Science

Honors:

- *summa cum laude* (GPA 3.9)
- Dean's List 6/6 semesters

PUBLICATIONS

Version-Aware Word Documents

Stephen M. Coakley, Jacob Mischka, and Cheng Thao. 2014. Version-Aware Word Documents.

In *Proceedings of the 2nd International Workshop on (Document) Changes: modeling, detection, storage and visualization* (DChanges '14).

ACM, New York, NY, USA, Article 2, 4 pages.

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