

Phoenix Kahlo

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<https://gitlab.com/gretchenfrage> • <https://github.com/gretchenfrage> • <https://linkedin.com/in/phoenixkahlo>

Experience

CORRELATION ONE

Manhattan, New York

Software Engineer

Jun 2018 - Aug 2019 & Jun 2020 - Aug 2021

- Hired as 3rd engineer at Correlation One directly out of high school.
- Led development of several key systems in following years between college sessions.
- Correlation One went on to rank #6 in LinkedIn Top Startups 2022.
- Developed Java/Python/JavaScript programming-based game from beta project to mature product.
- Developed novel pathfinding algorithm that reduced CPU costs by 3 orders of magnitude for our use case over A*.
- Designed and led series of in-house Rust training sessions. Evangelized Rust language.
- Ensured Google Kubernetes Engine/Docker-based cloud infrastructure could scale in response to event-based shocks in usage, developed distributed stress testing system to do so.
- Led deep refactors and cleanup. Developed regression testing system to facilitate refactors.
- Developed standardized cross-language monorepo-based system for building, versioning, and releasing, to upload desirable invariants in ergonomic ways.
- Developed ergonomic and efficient system for handling large amounts of content-addressed data without slowing down git.
- Developed proprietary JupyterLab-like system requiring sophisticated interactions with Docker.
- Led integration of RabbitMQ for AMQP-based distributed backend systems.
- Introduced support for Rust and Java into programming-based game.
- Developed several Rust backend services, including bespoke async WebSocket reverse-proxy.

EPIC SYSTEMS

Verona, WI

Software Developer Summer Intern

May 2022 - Aug 2022

- Designed and developed two-factor authentication-related feature involving distributed interactions between many systems, involving HTML, Javascript, C#, Swift, and M.

Education

UNIVERSITY OF WISCONSIN, MADISON

Madison, WI

Computer Science, Bachelor of Science

Sep 2019 - May 2020 & Sep 2021 - May 2023

Graduate-level courses:

- COMP SCI 736: Advanced Operating Systems.
- COMP SCI 739: Distributed Systems.

Leadership

Undergraduate Project Lab Coordinator

Dec 2019 - Present

- Organized MadHacks 2023, a MLH-associated Hackathon with 223 attendees.
- Volunteer multiple hours weekly for student organization to connect students interested in Computer Science and facilitate Computer Science projects.

Skills & Interests

Languages: Rust (6 years), Python (8 years), Java (8 years), Scala (7 years), C (7 years), Bash (5 years), LUA, JavaScript, TypeScript, C++, C#, HTML/CSS, Swift, M.

Skills: Algorithms, concurrency, distributed systems, architecture, API design.

Technologies: Google Cloud Platform, Kubernetes, Docker, RabbitMQ/AMQP, Jupyter, HTTP, WebSocket, Git.

Interpersonal: Empathetic, constructive, passionate. Explaining & documenting. Engineering philosophy.

Sites: Stack Overflow top 25% ([tinyurl.com/49vw3wvh](https://stackoverflow.com/users/49vw3wvh)). SWE SE top 24% ([tinyurl.com/dmnmj6dan](https://stackoverflow.com/users/4f2uudhw)). Rust crates ([tinyurl.com/mr4c499w](https://crates.io/users/mr4c499w)). Rust forums ([tinyurl.com/4f2uudhw](https://rust-lang.org/forum/4f2uudhw)).