

# Kai Geffen

## Senior Software Engineer

**Phone:** 413-409-2927

**Location:** New York City

**Email:** GeffenKai@Gmail.com

**GitHub:** KaiGeffen

**Website:** kaigeffen.com

Versatile and determined software engineer with 6 years of client and industry experience. Engaged community member and builder in the Zero-Knowledge space. Brings years of experience in managing, facilitating, and communicating with clients and peers to achieve excellence in software solutions. Passionate math and problem-solver who holds the value and viability of the product in mind at all times.

### Professional Experience

---

- |                             |  |
|-----------------------------|--|
| June 2023 -<br>Dec 2023     | <b>Senior Software Engineer, Chief Technology Officer</b><br><i>IronMill</i> <ul style="list-style-type: none"><li>• Lead the team in designing high-level scope for our project, creating diagrams and specifications, breaking it down into actionable tasks, and supporting best-practices are used throughout</li><li>• Attended industry-leading conferences and worked with key investors and partners to refine product-market fit</li><li>• Researched and advised on the technical aspects of Zero-Knowledge Proofs and where they could deliver the most value to our audience</li><li>• Executed end-to-end development in both Python and Typescript for both frontend and backend</li></ul> |
| January 2023 -<br>June 2023 | <b>Zero-Knowledge Exploration</b><br><i>Independent Exploration</i> <ul style="list-style-type: none"><li>• Researched Zero-Knowledge Proofs and verifiable execution</li><li>• Attended ZK Libson, implemented Tip5 hash function in Miden assembly for a hackathon project</li><li>• Contributed to RISC Zero's version 0.14.0 release</li></ul>   |
| June 2020 -<br>Dec 2022     | <b>Software Engineer</b><br><i>CelestialTCG.com</i> <ul style="list-style-type: none"><li>• Designed, built, and host a web-app game using Typescript for client-side code, Python for server-side, and Postgres for user database</li><li>• Used Websockets for connecting to the server, OAuth for account management, Git for version-control, DigitalOcean for cloud hosting, and Canvas for frontend visuals</li><li>• Hired and managed a 4 person team working to develop the art, user-interface, and sound experience for the game</li></ul>  |

## Education

---

|             |  |
|-------------|--|
| Fall 2016   | <b>Bachelor of Science in Computer Science</b><br>University of Massachusetts Amherst (3.77 Major GPA)   |
| Spring 2012 | <b>Associate of Science in Mechanical Engineering</b><br>Greenfield Community College (3.93 Overall GPA) |

## Areas of Expertise

---

- Typescript
- Zero-Knowledge
- Ruby
- Figma
- Python
- OCaml
- Git
- Docker

## Other Roles and Achievements

---

**Math Tutor:** Hundreds of hours of experience working with more than 10 clients over 10 years. Many clients returned and demonstrated improved results and understanding.

**SomAlive Audio Software:** Collaborated and advised the client on successfully designing, executing, and testing a custom audio processing application over a year-long contract. Developed user experience, low-level audio processing, and device configuration in Python.

**Atalsoft Internship:** Extensively tested new features and updates to the company's image processing SDK. Wrote and facilitated the use of a C# program that automatically merged source code comments with the online documentation for the entire SDK.

**Fiksu Internship:** Utilized Ruby to create a tool that emulates user interaction with the company's mobile marketing product. Handled the division of a large Ruby Gem into smaller Gems for ease of use throughout the company.

**Research Paper Contribution:** Used Scala and propositional logic to fully describe all commands within the functional capacity of Puppet, a configuration manager. Analyzed which orders of execution caused it to fail.

**Board of Directors Experience:** Served on the Board of a non-profit, consensus-based organization which runs an annual 2-week event for over 600 participants. Learned to facilitate, delegate, and communicate effectively with other directors and the community.