

Zachary G. Baylin

✉ me@zachbayl.in 📞 (770) 722-8911 📍 Atlanta, GA 🌐 zbaylin 🌐 zachbayl.in

Personal Statement

Analytical and intellectually curious developer with a passion for mathematical problem-solving through programming.

Education

Georgia Institute of Technology 📍 Atlanta, GA

📅 Expected Graduation Summer 2022

Candidate for B.S. in Computer Science

Concentrating in System Architecture & Theory

Major GPA: 4.0, Cumulative GPA: 4.0

Work Experience

Skolem Labs 📍 Remote (Chicago, IL)

📅 June 2021 - Present

📁 *Consultant, Part-time Software Engineer*

* Developing software in OCaml to support a decentralized finance (DeFi) trading platform

Goldman Sachs 📍 New York, NY

📅 June 2021 - August 2021

📁 *Intern, Investment Banking Engineering*

* Helped develop **Deal Link**, a platform used by bankers to automate commercial lending processes.

* Increased financial data quality in response to federal regulations using a custom language-agnostic rules engine.

* Interacted with bankers and quantitative strategists to understand and develop dynamic rules to fit changing business needs.

* Interfaced with both internal and external APIs to build a cohesive model of lending information.

Facebook 📍 Remote (Seattle, WA)

📅 January 2021 - April 2021

📁 *Software Engineer Intern*

* Developed solutions for advertisers to help better target their advertisements while maintaining user privacy.

* Automated the provisioning of SSL certificates on ad-hoc AWS EC2 instances for Facebook clients.

* Helped transition software from a standalone model to a clustered approach using Docker, Kubernetes, & Kong.

* Coordinated the release of a new version of software used by clients while maintaining compatibility with Facebook APIs.

Outrun Labs LLC 📍 Remote (Seattle, WA)

📅 May 2020 - August 2020

📁 *Software Engineer Intern*

* Helped to develop the **Revery** cross-platform GUI framework by implementing key features and deepening integration into supported platforms.

* Worked on **Onivim**, a modal text editor based on vim, implementing features such as hover, signature help, and font fallback in ReasonML/OCaml.

* Integrated with system APIs in C/C++ (Win32 & GTK3) & Objective-C (Cocoa) using the OCaml foreign function interface.

Rolltrax LLC 📍 Atlanta, GA

📅 August 2017 - August 2019

📁 *Co-Founder & Software Engineer*

* Developed a full-stack SaaS solution for work-based learning coordinators and students to take attendance and manage their work. The system is composed of a Crystal web API and a ReasonReact frontend.

* Beta tested the system at North Springs High School over two years in order to determine the needs of our clients.

Projects

* **xv6 Operating System:** Improved upon the UNIX-based educational operating system by implementing the following features: copy-on-write forking, lazy page allocation, priority-based scheduling, user-space threading, filesystem permissions, et. al.

* **Revery:** Contributed to the Revery cross-platform GUI framework, which enables developers to build consistent user interfaces across multiple platforms. Implemented various key features such as font-fallback and font families, and deepened native integration through platform specific APIs.

* **ReRequests:** Created a web requests library in ReasonML/OCaml using cURL that supports parallelism through libuv.

Skills

* **Languages/Tools:** OCaml, ReasonML, C, Java, Ruby, Kotlin, Crystal, Objective-C, Cocoa, SQL, TypeScript, Win32, Cocoa

* **Relevant Coursework:** Systems & Networks, Operating Systems, Applied Combinatorics, Number Theory & Cryptography, Abstract Linear Algebra, Compilers and Interpreters, Graduate Algorithms, High Performance Computer Architecture