

Anthony Calandra

Bachelor of Computer Science (co-op) 2019, University of Waterloo
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Summary

- Computer scientist with a passion for emerging technologies and trends.
- Proven leader at elevating teams' engineering practices and software quality.
- Experienced working in a variety of organizations from YCombinator startups to large companies.
- Practical and broad-based experience in concurrency / parallelism, databases, big data, embedded systems, and web applications.

Experience

Geotab

Software Developer, May 2024 – current

- Significantly improved scalability of 20+ year old vehicle routing and optimization C++ engine to support growing customer base and requirements for some of today's largest commercial fleets.
- Integrating essential tooling into the C++ application such as LLVM's static analyzers, unit test code coverage, and realtime metrics using Prometheus for observing live system state.
- Built AI tool in Golang for automated code reviews in Gitlab for company hackathon.
- Experimenting using several AI models and tools to increase throughput and maintain quality.
- Writing flexible, robust Typescript for micro-services-based application serving customers.

Freelancing and Contract Work

Jan. 2022 – Apr. 2024

Tesla

Autopilot Software Engineer, May – July 2022

- Worked on core libraries that helped guide vision and AI stacks.
- Voluntarily exited due to personal reasons.

DV Trading

Algorithmic Trading Engineer, Aug. 2020 – May 2022

- Developed proprietary trading software and algorithmic strategies in C++; UI tooling using C#.
- Automated risk management; market replay simulation; FPGA strategies; library development.
- Introduced GoogleTest, dependency management using vcpkg, and Jenkins automation.

Clearpath Robotics (OTTO Motors division)

Platform OS Engineer, Sept. 2019 – Aug. 2020

- Adding functionality to autonomous warehouse robots: C++ drivers for polling battery states; magnetic line sensor guiding; safety features and requirements; diagnostic aggregation.
- Solved robot errors and unexpected behaviours by inspecting diagnostics and system logs.

Fitbit

Embedded Software Engineer Intern, May – Aug. 2018

- Part of the Fitbit SDK team to deliver new JavaScript APIs for watch application developers.
- Contributed to open-source software in C to improve watches (see "JerryScript" in Projects).

Bosch (ESCRYPT), Branch, FutureAdvisor, SugarCRM

Software Engineer Intern, May 2015 – Dec. 2017

Notable Projects

Modern C++ Reference Sheet  github.com/AnthonyCalandra/modern-cpp-features

- A cheat sheet of modern C++ features with short descriptions and code examples. One of GitHub's most popular repositories in 2016 and 2017.

JerryScript IoT Engine Development  github.com/jerryscript-project/jerryscript

- JerryScript, a former Samsung project, is a JavaScript engine powering millions of Fitbit watches.
 - Contributed engine patches for completing standard library support and ES6 language features.
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