Ayush Kumar

PROFILE

10th grade developer with skills in full-stack development, machine learning and command-line tooling. Youngest-ever Apple WWDC scholarship winner at 10 years old. Vim enthusiast.

EDUCATION

The Nueva School	2015 - Present
Stanford Pre-Collegiate Studies / Product Design	2024 / 10th
Inspirit AI Scholars / High School Level	2022 / 8th
Inspirit AI Pioneers / High School Level	2021 / 7th

WORK EXPERIENCE

FOUNDER & CEO / OCTALWISE LLC

Software company publishing apps on the App Store, including Tracks (iOS app) and Acidity (Safari extension).

⊕ octalwise.com

FULL-STACK INTERN / DRAGONFRUIT AI / REACT, FLUTTER

2024 / 9тн

Created and published the Dragonfruit mobile app to the Play Store.

⊕ dragonfruit.ai

ML, Frontend Intern / Dragonfruit AI / Python, React

2023 / 8TH

Implemented frontend and backend components for general object filtering on camera feeds using OwlVIT, an optimized object detection model.

⊕ <u>dragonfruit.ai</u>

PROJECTS

Apps

Tracks (Octalwise) / Swift, Crystal

2023 / 9th

iOS app for monitoring live Caltrain timings through the API. Uses a server written in Crystal for caching API responses.

⊕ octalwise.com/tracks ♀ octalwise/tracks

Acidity (Octalwise) / JavaScript, HTML/CSS

2023 / 9th

Safari extension for navigating to archived versions of pages using <u>archive.ph</u>. Published to the App Store and available on macOS, iOS and iPadOS.

⊕ octalwise.com/acidity ♀ octalwise/acidity

FULL-STACK

TodoBox / Python, React

2022 / 7th

Todo app with support for descriptions, sections, dates, and more. Uses a React webapp for the frontend and a Python server using Firebase for data storage and authentication.

□ ayukmr/todobox-webapp

• <u>Shrew</u> / Clojure, ClJS	FRC scouting webapp for Team 4904.	2024 / 9th
• Lixel / Rust, Svelte	Collaborative pixel art tool.	2023 / 8th
• Piquant / Ruby, React	Bookmarking app in the style of del.icio.us.	2023 / 7th

COMMAND-LINE

Dotfiles / Various 2022 - Present

Personal dotfiles for various tools including vim, zsh, tmux, and git. The dotfiles are managed using zest and are completely modular.

□ ayukmr/dotfiles

 Zest / Ruby 	Tool for managing modular configuration directories.	2022 / 7th
• Robin / Python	TUI for Zoom team chat using the Zoom API.	2023 / 8th
• Sodium / Rust	Enhanced version of 1s written in Rust.	2022 / 7th
• Quark / Crystal	Tool for quickly jumping to certain directories.	2022 / 7th

OTHER

Glaze / Ruby, LLVM 2023 / 8th

Compiler for a new language created with the goal of learning how to use LLVM. Ruby bindings of LLVM are used to generate the LLVM IR and convert the program to machine code.

□ ayukmr/glaze

FTC Code / Java 2023 / 8th

Robot code for the 2023 FTC POWERPLAY robotics competition. Written as the sole programmer for the 10-member SharkBytes FTC team.

ayukmr/ftc-2023

• <u>Poplar</u> / Assembly, C	Simple x86 operating system with kernel written in C.	2023 / 9th
• Blocks / Rust	WGPU-based rendering of block terrain generation.	2023 / 9th

SKILLS

LIBRARIES & TOOLING

- Advanced: Vim, tmux, Git, SQLite, Firebase, React, Sinatra, Flask, WASM
- Knowledge: LLVM, WGPU, Qt, D3, Unity

LANGUAGES

- Advanced: Rust, Ruby, VimL, Python, JS, HTML/CSS, Swift, Crystal, SQL, ZSH
- Knowledge: C, C++, C#, Clojure, Java, Go, Lua, NASM, AppleScript

Awards

WWDC Student Scholarship / Apple	2019 / 4th
• Silver Level / USACO	2023 / 9th
Third Place / Golden Gate STEM Fair	2024 / 9th
Second Place / San Mateo STEM Fair	2020 / 5th
Best Presentation / Inspirit AI	2022 / 7th