Ayush Kumar

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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   2022 - PRESENT

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 / 9TH

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.

🌐 dragonfruit.ai

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 archive.ph. 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

• **Shrew** / **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 <u>zest</u> 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 `ls` 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

• **Poplar** / **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, Flask
- Knowledge: WASM, LLVM, WGPU, Unity

LANGUAGES

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

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