Ayush Kumar

github/ayukmr   ✉ contact@ayukmr.com   ⊕ ayukmr.com

PROFILE

9th 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
- Inspirit AI Scholars / High School Level   2022 / 8th
- Inspirit AI Pioneers / High School Level   2021 / 7th
- Stanford Pre-Collegiate Studies / Product Design   2024 / 10th

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 / 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 [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**
- **[Sherbet](#) / Haskell**   Reverse polish notation calculator written in Haskell. **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, 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