

# Omri Bornstein

Software Engineer

Greater Melbourne Area  
Australia

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🌐 [applegamer22.github.io](https://applegamer22.github.io)  
in [omri-bornstein](#)  
🐙 [AppleGamer22](#)

## Education

2017 **South Australian Certificate of Education**, [Australian Science & Mathematics School](#) (ASMS),  
2019 Adelaide  
2020 **Bachelor of Computer Science**, [Monash University](#), Melbourne  
Present

## Skills

- **Computer Programming Languages:** [Go](#), [TypeScript](#)/[JavaScript](#), [Python](#), [Kotlin](#)/[Java](#), [C](#)/[C++](#)
- **Document Markup Languages:** [HTML](#)/[CSS](#), [TeX](#)/[LaTeX](#), [Markdown](#)
- **Databases:** [MongoDB](#)
- **Tools:** [Git](#), [GitHub](#)/[GitLab](#), [Docker](#), [Kubernetes](#), [CI/CD](#)
- **Platforms:** [Linux](#), [Cloud Native](#), [web servers](#)/[browsers](#), [macOS](#), [Windows](#)
- **Soft Skills:** [technical writing](#), [presenting/public speaking](#), [research](#), [troubleshooting/debugging](#), [explaining](#), [collaboration/teamwork](#)

## Leadership Experience

May 2021 **General Representative**, [Monash University's Cyber Security Club](#) (MonSec), Melbourne  
January 2022  
January 2022 **Secretary**, [Monash University's Cyber Security Club](#) (MonSec), Melbourne  
June 2022  
June 2022 **Vice President**, [Monash University's Cyber Security Club](#) (MonSec), Melbourne  
Present

## Projects

### Open-Source

January 2022 **cocainate**, <https://github.com/AppleGamer22/cocainate>  
Present

- A cross-platform re-implementation of the macOS utility [caffeinate](#) that keeps the screen turned on either until stopped, for a set duration of time or while another process still runs.

May 2022 **stalk**, <https://github.com/AppleGamer22/stalk>  
Present

- A cross-platform file-watcher that can run a command after each file-system operation on a given files or simply wait once until a file is changed.

**raker**, <https://github.com/AppleGamer22/raker>

- A social media scraper that is interfaced via a server-side rendered HTML user interface (or a CLI), and is managed by a REST API and a NoSQL database.

December 2021 **CTFtime Discord Bot**, <https://github.com/monsec/ctftime-discord-bot>

- A Discord bot for [MonSec](#)'s Discord server, that fetches statistics about competing [Capture the Flag](#) (CTF) teams from [CTFtime](#), and displays them in the Discord interface.

June 2020 **sp**, <https://github.com/AppleGamer22/sp>  
January 2021

- My first attempt at building a Minecraft server plugin. This plugin adds the requirement that the player supplies the password (via a server command) before proper server interaction is allowed, and as long as the password isn't provided, the currently-unauthorized player is blinded and immobile.

### Research

August 2021 **Software Contributor**, [Monash University's FIT2082 unit](#), Melbourne  
December 2021

- I [contributed](#) to an [existing codebase](#), based on prior research by ([Gange](#), [Harabor](#) and [Stuckey](#), 2021) about [Lazy CBS](#), their [Multi-Agent Path Finding](#) (MAPF) algorithm.
  - I modified the [Lazy CBS](#) codebase such that the algorithm also outputs the final set of constraints that is used to rule out paths, such that [Lazy CBS](#) is formally an **Explainable** Multi-Agent Path Finding (XMAPF) algorithm.
  - I learned how to enable [Python-to-C++ bindings](#), such that the compiled [Lazy CBS](#) codebase can be used as a Python-facing library for future projects.

### Freelancing

June 2021

December 2021 • I implemented a fault-tolerant file back-up system that enables the continuation of file transferring from an variably-approximate point in time before the back-up disruption.