# Omri Bornstein

# Software Engineer

#### Education

2020 — Expected 2023 Bachelor of Computer Science, Monash University, Melbourne

#### Skills

- Programming Languages: Go, JavaScript/TypeScript, Python, Kotlin/Java, C/C++
- Tools: Git (with GitHub/GitLab), MongoDB, Docker, Terraform
- Platforms: Linux, cloud-native, web servers/browsers, macOS, Windows
- Design & Implementation: algorithms & data structures, object-oriented programming, test-driven development
- Soft Skills: technical writing, critical/analytical thinking, presenting/public speaking, research, troubleshooting/debugging, explaining, collaboration/teamwork

## Experience

### Monash Cyber Security Club (MonSec)

#### 2023 President

- Involved with industry relations for the purposes of sponsorship deals and collaborations.
- Overhauled the club's website for greater usability.
- Organised and ran an introductory-level workshop about command-line Linux.

#### 2022 Semster 2 Vice President

- Coordinated collaboration with the university's Faculty of IT for purposes of events and advertising.
- Organised and ran an introductory-level workshop about steganography.

#### 2022 Semester 1 Secretary

- Organised and recorded official committee and club meetings.
- Organised and ran an introductory-level about workshop binary reverse-engineering.
- Wrote a guide on the resources page of the club's website on how to easily install and set-up a Kali Linux virtual machine.
- 2021 Semester 2 Assistant Member Training Officer, Monash Cyber Security Club (MonSec), Melbourne
  - Helped to organise and ran a workshop about brute-forcing tools used for penetration testing.
  - Assisted in the club's management and operations.

#### Research

2023 Semester 1 & 2 Research Assistant, Monash University's FIT3144 unit, JavaScript

• Extended a browser-based tool (Wagner et al., 2023) used for building evolutionary algorithms in educational settings. Supervised by Dr. Markus Wagner.

2021 Semester 2 Research Assistant, Monash University's FIT2082 unit, C/C++, Python & Linux

- Contributed to an existing codebase, based on prior research (Gange, Harabor and Stuckey, 2021) about Lazy CBS, a Multi-Agent Path Finding (MAPF) algorithm.
- Built with C/C++ and Python for Linux-based platforms. Supervised by Dr. Daniel Harabor and Dr. Mor Vered.

#### Freelancing

2021 Q3 — Q4 Software Engineer, Contract, Melbourne, Go & test-driven development

• Implemented a custom asynchronous fault-tolerant file back-up system that enables the continuation of file transferring from a variably-approximate point in time before the disruption. Available at AppleGamer22/rb on GitHub.

# **Open-Source Projects**

since May 2022 raker, AppleGamer22/raker on GitHub, Go, Docker & MongoDB

• 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.

since May 2022 stalk, AppleGamer22/stalk on GitHub, Go, Linux & macOS

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

since January 2022 cocainate, AppleGamer22/cocainate on GitHub, Go, macOS & Linux

• 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.

2020 — 2021 sp, AppleGamer22/sp on GitHub, Kotlin/Java

• A Minecraft server plugin that enforces password authentication on player before allowing client-server interaction.

2019 — 2022 scr-web, AppleGamer22/scr-web on GitHub, TypeScript, Angular, Docker & MongoDB

 My previous attempt at building a full-stack (and a CLI) social media scraper with a single-page website framework and a RESTful server.