Omri Bornstein

Software Engineer

Go/Linux enthusiast, curiously seeking challenges & professional development

Education

2020 — 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, gRPC/Protocol Buffers, Hugo
- Platforms: Linux, cloud-native, web servers/browsers, macOS, Windows, Azure, Firebase
- Design & Implementation: algorithms & data structures, object-oriented programming, test-driven development
- Hobbies: playing guitar, listening to/analysing music, self-directed learning, personal projects

Experience

Monash Cyber Security Club (MonSec)

2023 President, Terraform, Azure, Git, Hugo

- Involved with industry relations for the purposes of sponsorship deals and collaborations.
- Overhauled the club's website for greater usability.
- Assisted in adding more Azure infrastructure and an automation pipeline to the club's CTFd server with Terraform and GitHub Actions.
- Organised and ran an introductory-level workshop about command-line Linux.

2022 Q3—Q4 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 Q1—Q2 Secretary, Python, Git

- Wrote a custom Jupyter notebook for membership base analysis and reporting purposes.
- 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 Q3—Q4 Assistant Member Training Officer

- 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 Research Assistant, Monash University's FIT3144 unit, JavaScript, Python & Git

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

- 2021 Q3—Q4 Research Assistant, Monash University's FIT2082 unit, C/C++, Python & Linux
 - Contributed (available on GitHub) 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

2023 Q3—Q4 Associate Software Engineer, Radio Monash, Clayton, volunteering

Advised the leadership team on software deployment and server migration of their audio stream.

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.

Projects external contributions

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. I presented this project at Melbourne's Go meet-up.

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.