Omri Bornstein

Software/Security Engineer

Go/Linux enthusiast, curiously seeking challenges & professional development

Education

2020 — 2023 Bachelor of Computer Science, Monash University, Clayton VIC

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
- Security Analysis: reverse-engineering (Ghidra), network analysis (Wireshark), Burp Suite, entry analysis (nmap, gobuster, sqlmap), credential brute-forcing (hydra, john, hashcat)
- 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

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.

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.