

# Santiago Espinosa Mooser

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## WORK EXPERIENCE

### HexTrust

May 2022\* – Present

*Senior DevSecOps Engineer (Intern → L11 → L12 → L13 engineer)*

*Hong Kong*

- **Maintained, deployed and managed Privileged Access Management (PAM) tool which allowed company to maintain auditable, permissioned access to production services**
  - Deployed, maintained and managed RBAC for AWS, Kubernetes, DBs, and servers
  - Came up with roles for different departments based on required privileges to maintain RBAC
  - Automated deployment of PAM access and various roles to reduce PAM deployment time to ~1 hour
- **Provided technical and nontechnical security consultation for employees in the company**
- **Proposed, planned and implemented migration to distroless containers**
  - Designed and implemented CICD pipeline to build, sign, deploy, and debug distroless containers
  - Gave technical talks to developers about new pipeline & what that meant for their development flow
  - Coordinated and guided developer teams' migration to distroless containers.
- Organized, launched and ran private bug-bounty program. Responded to reports as needed & coordinated fixes.
- Assisted the infrastructure team with ad-hoc tasks where needed, including in k8s and linux management.
- Automated security tooling and CICD pipelines using Python and Bash.

### Handshake Networking

May 2020 – Jan 2022\*

*Penetration Tester Intern (intern → part-time)*

*Hong Kong*

- Designed, developed, and deployed Django-based (Python) security scanner.
- Carried out automated penetration tests and assisted in report writing.
- Managed and maintained on-prem company servers and deployment various services (Gitlab, Bookstack, ...)

## EDUCATION

### The University of Hong Kong

Sep 2018 - July 2023

*B.S Engineering, Computer Science*

*Hong Kong*

- Relevant coursework: [Algorithmic game theory](#), [Advanced algorithm design & analysis](#), [Discrete Mathematics](#), [Cryptography](#), [Compiling techniques](#), [Functional programming](#), [Principles of programming languages](#).

## Projects

### Automated provisioning of YubiKeys

- Automated provisioning of YubiKeys to allow developers to sign code commits in codebase. [\[1\]](#)

### Mock Crypto arbitrage trading bot

- Developed mock python crypto arbitrage bot to learn low-latency optimizations and memory tuning. Used Python classes, asynchronous programming and multi-threading to maintain low latency execution loop [\[1\]](#).

### Trading competitions

- **Participated in IMC trading competition:** analyzed trading data & implemented bonds, ETFs and stock trading strategies. Finished 729 out of 10,000+ teams, top 15 in Hong Kong (out of 110+) [\[1\]](#) [\[2\]](#).
- **Participated in Jane Street's ETC** where with a team of 4 people, we designed and implemented various ETF, Bond and stock strategies.

## SKILLS & INTERESTS

- **Skills:** Automation (python, bash); Linux Management; Reverse engineering; Containerization; Statistics, Low-level programming (C, Assembly, logic flow diagrams); Debugging
- **Interests:** Self-hosting; Systematic trading; Muay Thai; Strategy video games; Running; Self-hosting; Board games; Ethical hacking; Economics