

# JOEL HYEOKJOO MUN: FULLSTACK DEVELOPER WITH EXCELLENCE IN FE/SECURITY

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## Experience

### Security researcher (Independent)

*Sep 2021– Jan 2022*

- Reported security vulnerabilities and received bounties from the companies/products not limited to: AT&T, Slack, GitHub, Naver, Whale Browser, Riot Games, Canva, Nokia, Logitech, Basecamp. Some other companies are unable to be disclosed of names.
- Stack: Bash, Docker, Python, Kali Linux, Golang, JavaScript, hacking analysis tools

### Presence Labs, Inc ([presence.so](https://presence.so))

*Lead software engineer, Fullstack / Nov 2020 – Sep 2021*

- Built and led the team of four, mentored engineers and the designer, and directed the team to solve practical UX problems
- Achieved 50% increase in performance by undergoing a complete rewrite of frontend from PHP-based web app to a very strictly typed Typescript React app.
- Automated CI/CD for testing, web deployment, Electron build, code signing and deployment on CircleCI and GitHub Actions.
- Designed and deployed API endpoints with Node.js for WebRTC connection with IaC tools on AWS
- Stack: CI/CD (CircleCI and Github Actions), AWS, AWS CDK, Redis, Terraform, Github Registry, Node.js, Typescript, Storybook, React, styled-components, styled-system, Redux, Redux-saga, Electron, Webpack, Jest

### Angelswing, Inc ([angelswing.io](https://angelswing.io))

*Frontend team lead / Jan 2020 – Nov 2020*

- Built the team of six up and managed its resources
- Worked closely with the business team to derive insights and problems from the users and build user-oriented products
- Boosted web performance by 10% with Chrome performance tool and optimization in React
- Reduced deployment time by 30% by improving bottlenecks on CI/CD
- Upgraded the product version to 2.0 with massive improvements in the UI/UX and technology.
- Maintained forks of open-source repositories for optimization purposes

*Frontend engineer / Sep 2019 – Jan 2020*

- Worked on UI components and logics with React, Redux, Typescript.
- Set up E2E Testing for CI/CD, increased automated testing coverage from 0% to 10%
- Stack: React, Typescript, Jest, Puppeteer, Docker, CircleCI, Openlayers, Three.js, Cesium.js, RxJS, Redux, Storybook, Webpack, Redux-observable, Python, Node.js

## **CERT, Republic of Korea Navy ([navy.mil.kr](http://navy.mil.kr))**

*Software engineer / Oct 2017 – Aug 2019*

- Automated repetitive processes such as virus protection, email blocklisting, device control system monitoring by creating web and shell applications
- Monitored, tracked, and prevented harmful network traffics and activities using firewall and packet sniffing tools (Other operations are classified)
- Worked closely with and surveyed officers to find problems in the current working process
- Stack: bash, JavaScript, Ubuntu, network analysis tools

## **Gööp, Inc ([hk.goop.ai/feed](http://hk.goop.ai/feed))**

*Web developer / Apr 2017 – May 2017*

- Created the landing page with JavaScript and CSS and the logo and brand identity with Photoshop and Illustrator, as Goop was in its early stage, starting its new web product.
- The logo and brand identity are still being used. It has now grown to be one of the biggest university communities in Hong Kong in 2022.

## **Education**

### **The University of Hong Kong**

*Information Systems and Computer Science / 2015 – 2022 (military service: 2017 - 2019)*

## **Projects**

- [Youtube Lite](#): Simpler version of YouTube with React, Redux, Redux-saga, and TypeScript
- [elasticpwn](#): Full-stack security research project on Elasticsearch based on Go and Next.js
- [as-pect](#): Testing framework for Assemblyscript; 3<sup>rd</sup> biggest contributor of all time.
- [UI Theory](#): React in vanilla JavaScript to understand its inner workings
- [risc-v-web-simulator](#): RISC-V instruction set simulator on the web using Webassembly
- [atm](#): Automation scripts for hacking with bash, python and docker
- [async-jobs](#): isomorphic, centralized management of async jobs JavaScript
- [png-rs](#): Webassembly-first PNG decoder in Rust to be used in Node.js and browser
- [@graphcentral/graph](#): Performant graph visualization with WebGL, Webworkers, and IndexedDB
- [@graphcentral/notion](#): Knowledge graph for Notion, like obsidian.md or Roam research

## **Curated articles**

*List of articles demonstrating knowledge in FE as well as other areas. [Visit Joel's blog for more articles.](#)*

- [Making stupid React smart in re-rendering](#)
- [How to make useSelector not a disaster](#)
- [Extensive introduction to why and how you might want to use and test redux-observable](#)
- [Learn all major functionalities on Chrome's performance tab and practice it with a simple React project](#)
- [Complete end-to-end guide for developing dockerized lambda in typescript, terraform and SAM CLI](#)

## **Awards**

- Runner-up at Military Open-Source SW Competition / Nov 2018
- 1<sup>st</sup> place in the ROK & US Navy Cyber Defense Contest / May 2018
- HKU Foundation Scholarship for Outstanding International Students / May 2015