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)

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)

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)

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)

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, an d Typescript
- [elasticpwn](): Full-stack security research project on Elasticsearch based on Go and Next.js
- [as-pect](): Testing framework for Assemblyscript; 3rd 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
- 1st place in the ROK & US Navy Cyber Defense Contest / May 2018
- HKU Foundation Scholarship for Outstanding International Students / May 2015