

Joel Hyeokjoo Mun

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An engineer with 4 years of development experience, full of curiosity and genuine love in software engineering

EDUCATION

The University of Hong Kong (leave of absence: 2017 – 2021)
Information Systems & Computer Science

Sep 2015 – June 2023

EXPERIENCE

Senior software engineer | Presence Labs, Inc, Remote (US)

Nov 2020 – Sep 2021

- Took the lead in rewriting the Electron app with React, Redux and Typescript, achieving 30% decrease in average CPU usage
- Designed and deployed Node.js serverless endpoints using AWS CDK and Terraform to serve thousands of users more effectively than EC2
- Automated testing, deployment, build of the Electron and web app on CI/CD

Frontend team lead | Angelswing, Inc, South Korea

Sept 2019 – Nov 2020

- Managed the team of six frontend engineers and communication with business and design team
- Directed the team in upgrading the product version to 2.0 with improvements in UI and technology
- Boosted the frontend performance up to 20% by identifying bottlenecks in React and TypeScript
- Set up E2E testing using Puppeteer in CI/CD for the vital features of the web app

Software Engineer | Republic of Korea Navy, South Korea

Oct 2017 – Aug 2019

- Developed internal Chrome extension for cybersecurity management inside the intranet
- Automated monitoring virus infection by creating a bash application interacting with PostgreSQL
- Maintained scraper and frontend for an internal search engine based on JavaScript

PROJECTS

Graph

- Designed a performant graph visualization library based on TypeScript, WebGL and IndexedDB

Project 'Hack the Web'

- Reported security vulnerabilities to notable organizations (GitHub, Riot Games, AT&T, Slack, Canva and more), for better understanding of cybersecurity and received total ~20K USD in return

RISC-V Web Simulator

- Ported a C++ RISC-V simulation library to WebAssembly to run it more conveniently on Typescript frontend

Elasticpwn

- Leveraged Go and React to collect and analyze data from thousands of Elasticsearch endpoints

YouTube Lite

- Built a simpler version of YouTube with React, Redux and Typescript, reaching 300+ monthly users

Technologies and Languages

- JavaScript, TypeScript, Python, Go, AssemblyScript
- AWS, AWS CDK, Terraform, Docker, Electron, React, Node, MongoDB, CircleCI, WebAssembly

Awards

- ROK Military Open-Source Software Competition, runner-up, Nov 2018
- ROK & US Navy Cyber Defense Contest, first prize, May 2018
- HKU Foundation Scholarship for Outstanding International Students, Nov 2015