## Po-Heng (Henry) Lin

henrylin-portfolio.herokuapp.com/ github.com/PoHengLinTW in/pohenglintw



## **EDUCATION**

**Rice University** Houston, TX

M.S. in Computer Science Aug. 2021 - Dec. 2022 (expected)

**National Chung Cheng University** 

Chiayi, Taiwan Sep. 2016 - Jun. 2020

B.S. in Computer Science and Information Engineering

**TECHNICAL SKILLS** 

Programming Languages: C/C++, Java, Python, JavaScript, TypeScript, Hack, Shell, Golang

Cloud Services & CI/CD Tools: GCP, AWS, Terraform, Docker, Kubernetes

Frameworks & Tools: Git, Mercurial, Vue.js, React.js, Mongoose, Nginx, ZooKeeper, WebRTC, Coturn

Databases & Big Data: MYSQL, GraphQL, InfluxDB, MongoDB, PostgreSQL, Redis, Kafka

PROFESSIONAL EXPERIENCES

Meta Platforms Inc. (formerly Facebook)

Bellevue, WA

Hsinchu, Taiwan

May 2022 - Aug. 2022

**Production Engineer Intern** Hack(PHP), JavaScript(React), Python, SQL

• Built capacity estimation tooling to calculate the number of hosts and power needed for new users of an infra service which reduced engineering time requirements for capacity calculations by more than 90%

 Created a capacity request tracking web service to record and organize all capacity requests from infra customer product teams with MySQL, ReactJS, and GraphQL

Rebuilt an old capacity query service in Hack improving query speeds by more than 10%

Patere Technology Co.

Software Engineer Jun. 2020 - Jul. 2021

JavaScript(Node, Vue, React), C++, Java, Go, Terraform

• Thea.ai — A online monitoring system for medical diagnosis and health care

- Established a high-speed video data transmission platform and incorporated computer vision models to assess patients' recovery status and detect dangerous actions of the elderly with 90% accuracy
- On-Time Talent Solution A medical profession hiring web application with 100,000+ global users
  - Optimized the bottleneck of graphQL API in backend server to shorten frontend query time by 20%
- Constructed the CI/CD pipeline on GCP and containerized the code with Kubernetes to replace the manual testing and deployment process, saving development time for all product teams by 50%

## **PROJECTS**

**Yalnix OS** — A Unix-like operating system in C

Feb. 2022 - May 2022

- Built a kernel handling memory management, context switch, system calls, and scheduling from scratch
- Handcrafted a unified file system(Ext4) to support all file operations and file path name lookup

MyDB — Relational database implementation from scratch in C++

Jan. 2022 - May 2022

• Supported cache/buffer management, table/page/record management, SQL parser and lexer, relational operation (select, join, aggregation), and query optimization

Macssenger Nov. 2021 - Dec. 2021

Created a web application to support real-time messaging with WebSocket and deployed it on Heroku

Wakeup words detection in embedded devices

Nov. 2021 - Dec. 2021

Trained NLP model in Google CoLab and run the TinyML model in Arduino embedded devices

**Ricebook** — A Facebook clone for Rice University (Full-stack)

Sep. 2021 - Nov. 2021

Dec. 2019 - Jan. 2020

Established a social media platform that supports posting, comments, and reactions using MERN stack

**OneClickMeeting** — Google Chrome extension app (Hackathon)

Oct. 2021

• Provided fast video conference services like Google Meeting within one click on extension tab

## **Real-Time Traffic Signs Detection and Recognition**

Used YOLOv3 to detect and recognize traffic signs under various driving conditions with 80% accuracy