Gao Zhiyuan

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Work Experiences

Trilogy

Software Engineer *Aug. 2022 - Now*

1. AWS Cost Optimization project - Lowered AWS Service Costsfrom 25 million USD annually down to 5 million USD in a team of 3.
- Designed non-intrusive, sustainable plans to guarantee resource sharing, user resource awareness, automated anomaly detection and permission rules.

2. Social Platform for Education A social platform that enables 4 12 grade students to memorize curricular knowledge through making posts with the help of AI and memorization techniques.
The tech stack includes Next.js, Prisma/MySQL, GPT-3, Stable-Diffusion, Docker and AWS Devops.

3. Data platform to calculate interaction intensity of communication tools Construct a data platform of company employee interaction intensity.
Extract data from communication tools, construct the graph relationships of all employees and load the data into the graph database.

MISE

Devops Engineer *Jun. 2022 - Sep. 2022*
- Improve system performances including AWS Lambda, API Gateway and MySQL RDS
- Apply Terraform IaaS for fast deployment
- Enabled development environment vs. production environment split to stablise our services
- Lead the team to learn to apply Github Best practices (PRs, code reviews)
- Implement the development/staging/release processes of our product

MetaMUI-SovereignWallet

Python SDK Developer *Dec. 2021 - Mar. 2022*
Migrate Rust SDK to Python SDK for MetaMUI blockchain built with Substrate framework

Alibaba Cloud

Intern for Summer of Code *Jun. 2021 - Sep. 2021*
Nodejs Dev/QA intern for Serverless Devs. Developed unit tests, integration tests, and APIs and Git workflow automation with Typescript, Jest and Github workflow

Chinese Academy of Science   PLCT Lab

QEMU Developer *May. 2020 - Nov. 2020*
One patch to QEMU upstream to emulate Nuclei RISC-V SoCs with customised interrupt controllers and registers,
Delivered an oral presentation at CRVA 2020

Google   Summer of Code

Java Intern *Jun. 2019 - Sep. 2019*
Engineered Apache Nemo to process single-stage batch data with AWS Lambda Functions

Seoul National University   Software Platform Lab

Research Intern *Mar. 2019 - Nov. 2019*

Enable distributed dataflow system to benefit from serverless computing using AWS Lambda Functions, Java and Apache Nemo

Two published domestic papers, and one pending research for international conferences

SUSE Beijing, China
QA Intern *Oct. 2018 - Jan. 2019*
Part of the Dev&QA team working on openSUSE and SUSE Linux Enterprise, with git, openQA and perl

Research Project

Accomodate Input Spikes with AWS Lambda Functions
A hyrbid system of Dockers and AWS Lambda Functions, where stable workloads are running on docker and input rate spikes are offloaded to AWS Lambda Functions,
Implemented job scheduling/balancing algorithm to coordinate Lambda Functions' life cycle, data relay, and system-level dynamic scaling

Education

National Cheng Kung University Taiwan
B.S., Political Science *Sep. 2015 - May. 2017*
Seoul National University Korea
B.S., Computer Science and Engineering *Sep. 2019 - Quit)*

Skills: Python, Java/Typescript, React, AWS, Docker, Git, CI/CD, C/C++, MySQL

Languages: Chinese, English (TOEFL 100), Japanese (JLPT N1) and Korean