

Ting-Long Wei

FULL-STACK DEVELOPER

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Summary

Full-stack developer with an interest in financial and healthcare technology, who is reverse engineering web applications. I've supported the non-tech industry's use of digital technology and led growth at a bank and hospital in my capacity as lead engineer. More than 6 years of varied experience in software engineering, with emphasis on frontend development, backend development, software architecture design, and security engineering.

Love to share my knowledge and experience to benefit open sources and tech communities. Interested in devising a better problem-solving system for challenging tasks, and learning the latest technologies and tools.

Skills

DevOps AWS, GCP, Docker, Jenkins

Back-end Django, Flask, Spring Boot, REST API

Front-end Angular, HTML5

Programming Node.js, Python, Java, PHP, Swift

Languages Chinese, English

Work Experience

Freelance

Taipei, Taiwan

FULL-STACK DEVELOPER

Sep. 2021 - Present

- Everything that matters.
- Designed and provisioned the entire infrastructure on the AWS cloud to meet security compliance and acquire a business license for financial services in Korea.
- Continuously improved the infrastructure architecture since launching the service. (currently 3.6 million users)

Taipei Beitou Health Management Hospital

Taipei, Taiwan

BUSINESS LECTURER

June 2021 - July 2021

- Everything that matters.
- Designed and provisioned the entire infrastructure on the AWS cloud to meet security compliance and acquire a business license for financial services in Korea.
- Continuously improved the infrastructure architecture since launching the service. (currently 3.6 million users)

E.SUN BANK

Taipei, Taiwan

SOFTWARE ENGINEER

Jun. 2018 - Mar. 2020

- Designed on-boarding process to guide new engineers, help them to focus on the right tasks, and set expectations to help them be successful at Infrastructure team.
- Migrated the orchestration system from DC/OS to Kubernetes which is based on AWS EKS. Managed 3 Kubernetes clusters and 300+ pods. Managed all Kubernetes manifests declaratively with Kustomize and ArgoCD.
- Designed and managed complex network configurations on AWS with 4 VPC and 100+ subnets. Separated the development network and operation network according to financial regulations. Established dedicated network connections from AWS VPC to partners' on-premise network based on AWS Direct Connect with secure connection using IPsec VPN. Provisioned OpenVPN servers with LDAP integration.
- Provisioned a observability system with Kafka, Elastic Stack(Filebeat, Heartbeat, APM Server, Logstash, Elasticsearch, Kibana). Collected log, uptime, tracing data from hosts, containers, pods and more. The ES cluster which has 9 nodes processed more than 1 billion documents per month. Wrote Terraform module to easily provision ES cluster on AWS EC2 instances.
- Provisioned a monitoring system with Kafka, Telegraf, InfluxDB, Grafana. Collected metrics from hosts, containers, pods and more. Wrote Terraform module to easily provision InfluxDB with HA on AWS EC2 instances.
- Introduced Kong API Gateway to easily connect all API microservices with a declarative management method based on Terraform and Atlantis to collaborate and audit change history.
- Provisioned the Directory Service for employee identity management based on OpenLDAP which guarantees HA with multi-master replication.
- Implemented Worker microservices consuming Kafka event topics for email, SMS, Kakaotalk and Slack notification. Developed in-house framework to easily build Kafka consumer microservice with common features including retry on failure, DLQ(Dead Letter Queue), event routing and more.
- Introduced Elastic APM to help distributed tracing, trouble-shooting and performance testing in MSA.

College Bike

Taipei, Taiwan

SCHOOL AMBASSADOR, SOFTWARE ENGINEER

Apr. 2016 - Jun. 2016

- Provisioned an easily managable hybrid infrastructure(Amazon AWS + On-premise) utilizing IaC(Infrastructure as Code) tools like Ansible, Packer and Terraform.
- Built fully automated CI/CD pipelines on CircleCI for containerized applications using Docker, AWS ECR and Rancher.
- Designed an overall service architecture and pipelines of the Machine Learning based Fashion Tagging API SaaS product with the micro-services architecture.
- Implemented several API microservices in Node.js Koa and in the serverless AWS Lambda functions.
- Deployed a centralized logging environment(ELK, Filebeat, CloudWatch, S3) which gather log data from docker containers and AWS resources.
- Deployed a centralized monitoring environment(Grafana, InfluxDB, CollectD) which gather system metrics as well as docker run-time metrics.

National Taiwan University Hospital, Emergency Medicine Dep.

Taipei, Taiwan

SOFTWARE ENGINEER

Oct. 2014 - Mar. 2015

- Implemented RESTful API server for car rental booking application(CARPLAT in Google Play).
- Built and deployed overall service infrastructure utilizing Docker container, CircleCI, and several AWS stack(Including EC2, ECS, Route 53, S3, CloudFront, RDS, ElastiCache, IAM), focusing on high-availability, fault tolerance, and auto-scaling.
- Developed an easy-to-use Payment module which connects to major PG(Payment Gateway) companies in Korea.

National Cheng Kung University

Tainan, Taiwan

SOFTWARE ENGINEER

Jan. 2014 - Jun. 2014

- Developed a proxy drive smartphone application which connects proxy driver and customer.
- Implemented overall Android application logic and wrote API server for community service, along with lead engineer who designed bidding protocol on raw socket and implemented API server for bidding.

Honors & Awards

2013 Academic Excellence Awards, NCKU

Tainan, Taiwan

Certificates

2017 Java SE 6, Oracle

Education

NCKU(National Cheng Kung University)

Tainan, Taiwan

B.S. IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

Sep. 2012 - Jun. 2016

- Exchange in CityU(City University of Hong Kong) in CS Dept.

Extracurricular Activity

VGHTPE (Taipei Veterans General Hospital)

Taipei, Taiwan

ASSISTANT, VOLUNTEER

Jun. 2017 - Dec. 2017

- Reformed the society focusing on software engineering and building network on and off campus.
- Proposed various marketing and network activities to raise awareness.

NCKU (National Cheng Kung University)

Tainan, Taiwan

VOLUNTEER

Sep. 2010 - Oct. 2011

- Gained expertise in hacking & security areas, especially about internal of operating system based on UNIX and several exploit techniques.
- Participated on several hacking competition and won a good award.
- Conducted periodic security checks on overall IT system as a member of POSTECH CERT.
- Conducted penetration testing commissioned by national agency and corporation.