

Wen-Chieh Wu

TECHNICAL LEAD · SOFTWARE ARCHITECT · FULL STACK ENGINEER

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Summary

Passionate problem solver, technology enthusiast, compassionate leader with 8+ years as software engineer and architect and 5+ years as technical lead/engineering manager in multidisciplinary environments.

Excel in leadership, critical thinking, communication and software engineering & architecture. Strong skills in JavaScript (incl. React, Express), Golang, Docker, CI/CD pipelines and software architecture design. Major contributor of tesseract.js (31k+ stars) and ffmpeg.wasm (11k+ stars). Certified architecting, data engineering, big data and machine learning specializations in Google Cloud Platform.

Work Experience

AICS

Singapore

ENGINEERING MANAGER

Nov. 2022 - PRESENT

- Contributed to product V2 architecture design
- Led, designed and implemented test automation pipelines to reduce 18% manual operational time and 50%+ test execution time by scaling out
- Led DevOps team to mitigate Azure down incident on 7 Feb 2023 and recover services in 8 hours
- Led Innovative Tools development tools to generate E2E test scripts 6x faster to assure product quality and to harvest customer requirements efficiently
- Led cloud migration project to migrate mission critical AI services from Azure to GCP in 2 months
- AEEA Winner on March 2023 (5th month at AICS, nominated by colleagues)

ByteDance

Singapore

STAFF SOFTWARE ENGINEER

Aug. 2021 - Nov. 2022

- Developed an event middleware service to handle millions of events exchanged between internal services
- Built an artifact platform module to support the publication of thousands of artifacts to multiple repositories globally
- Led a system rearchitecture project to enrich documents and identify 2 new microservices
- Led a product cloudization project in service platform team with 6+ members
- Migrated internal services to achieve cloud native architecture by adapting 10+ cloud managed services

INTELLEX

Singapore

TECHNICAL LEAD

Apr. 2020 - Jul. 2021

- Led a team of backend and frontend engineers to develop knowledge platform for law.
- Led re-architecture project which eliminates 10+ redundant services, boosts observability and flexibility of data analysis pipeline and reduce cost
- Reduced 30% of AWS cost in 2 months
- Succeeded in supporting to pass company ISO 27001 annual audit without any NC.

Delta Electronics

Taipei City, Taiwan

SOFTWARE ARCHITECT & PRODUCT MANAGER

May 2019 - Mar. 2020

- Established a cross-region project team with 10+ members to research and develop an edge computing solution in manufacturing industry.
- Designed a microservice software architecture for edge computing solution to enable flexibility and scalability.
- Adopted gitlab-CI and Ansible to deploy microservices in Kubernetes cluster to minimize deployment efforts.
- Developed a tensorflow serving like interface library in Golang.

SENIOR TECHNICAL LEAD

Feb. 2018 - May 2019 (1 year 4 months)

- Established a cross-region team of engineers, designers and QA with 20+ members in charge of front-end development.
- Implemented working model for cross team collaboration and guidelines for engineers and designers.
- Led team to develop over 10 applications at the same time, 2 of them attract hundreds of users internally and improve work performance.
- Implemented API microservices with ExpressJS and deployed as AWS Lambda functions.
- Incubated 3 senior developers to become team leaders leading regional team members.

- Established a team of engineers with 9+ members in charge of innovative software research and development.
- Defined and promoted in-house UI framework to all front-end developers.
- Designed and built up CI/CD pipelines with gitlab, gitlab-CI, docker, ansible and more.
- Designed and deployed applications to AWS cloud environment
- Implemented RESTful API guideline to enable consistent API design across applications.
- Led and implemented 3 projects with React and promoted to organization to boost work performance

SENIOR PROJECT ENGINEER

Sep. 2014 - Apr. 2016 (1 year 8 months)

- Member of Strategy and Innovation Research team which was under CTO to research for enterprise transformation.
- Developed application prototypes with React to demonstrate concepts to Delta senior managers (incl. CEO, CTO and COO) and got positive feedback in both 2015 and 2016.
- Operated 2 internal projects which transfers to BU/BG after incubation stage.

Education

National Taiwan University

Taipei City, Taiwan

MASTER'S DEGREE IN COMPUTER SCIENCE AND INFORMATION ENGINEERING

Sep. 2013 - Sep. 2014

- Got ACM 2014 Research in Adaptive and Convergent Systems (RACS '14) Best Paper Award (paper acceptance rate 23.5%).

Honors & Awards

2021	Mentor , CodeDay	Remote
2020	Best PM Award , Delta Research Center	Taipei City, Taiwan
2016	Judge , The InnoServe Awards 2016	Taipei City, Taiwan
2015	Delta Electronics Representative , W3C Web of Things F2F Meeting	San Francisco, U.S.A
2014	Best Paper Award , 2014 Research in Adaptive and Convergent Systems (RACS '14). ACM	Towson, U.S.A
2014	Speaker , Hack in Taiwan Conference (HITCON) 2014	Taipei City, Taiwan
2011	Outstanding College Youth , Outstanding College Youth of National Taiwan University	Taipei City, Taiwan

Certifications

2020	AWS Fundamentals by Amazon Web Services on Coursera. Certificate earned at 06/28/2020 , AWS	AWS
2020	Deep Learning by deeplearning.ai on Coursera. Certificate earned at March 2, 2020 , deeplearning.ai	Andrew Ng
2020	Programming with Google Go by University of California, Irvine on Coursera. Certificate earned at January 12, 2020 , University of California, Irvine	Ian Harris
2019	Data Engineering, Big Data, and Machine Learning on GCP, a 5-course specialization by Google Cloud on Coursera. Specialization Certificate earned on August 11, 2019 , Google Cloud Training	Google Cloud
2019	Architecting with Google Cloud Platform, a 6-course specialization by Google Cloud on Coursera. Specialization Certificate earned on August 6, 2019 , Google Cloud Training	Google Cloud
2019	Digital Business Strategy: Harnessing Our Digital Future , MIT Sloan School of Management	MIT
2012	Leadership Development Program , National Taiwan University	National Taiwan University
2012	Cloud Computing Program , National Taiwan University	National Taiwan University

Side Projects

ffmpeg.wasm

<https://github.com/ffmpegwasm/ffmpeg.wasm>

OWNER

Oct. 2019 - PRESENT

- ffmpeg.wasm is a pure Webassembly / Javascript port of FFmpeg. It enables video & audio record, convert and stream right inside browsers.
- 7.8k+ stars in Github.

Tesseract.js

<https://github.com/naptha/tesseract.js>

CONTRIBUTOR

Feb. 2018 - PRESENT

- Tesseract.js is a pure Javascript port of the popular Tesseract OCR engine. It supports over 100 languages, automatic text orientation and script detection, a simple interface for reading paragraph, word, and character bounding boxes. Tesseract.js can run either in a browser and on a server with NodeJS.
- 27k+ stars in Github.

Skills

Strong	Golang, React, JavaScript, Docker, Gitlab CI, Kubernetes, AWS, Terraform, Software Architecture Design, Microservices
Knowledgeable	Vue, Java, Python, Ansible, Latex, Bitcoin, GCP, Azure, Ruby on Rails
Languages	Chinese, English