

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

ASUS Intelligent Cloud Service (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

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

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| 2023 | AICS Engineering Excellence Awards Winner , AICS | Singapore |
| 2022 | Spot Bonus Winner , ByteDance | Singapore |
| 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

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|------|---|----------------------------|
| 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.
- 11k+ 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.
- 31k+ stars in Github.

Skills

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|----------------------|---|
| 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 |