

# Lang-Chi Yu

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## Education

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### University of Southern California

M.S. IN COMPUTER SCIENCE

Los Angeles, California

Aug. 2018 — Dec 2019

### National Taiwan University (NTU)

M.S. IN COMMUNICATION ENGINEERING

Taipei, Taiwan

Sep. 2015 — Jun. 2017

- Master thesis: “Abstractive Headline Generation for Spoken Content with ASR Error Modeling<sup>1</sup>.”
- Proposed and implemented novel attentive RNN architecture with Lua Torch, which incorporated automatic speech recognition (ASR) error modeling mechanism to learn from text data instead of from large number of spoken documents with reference headlines.
- Generated the finding that proposed architecture outperformed RNN and ARNN models that were trained on pure text data with an increase in ROUGE-1 (correctness metric for summarization) from 21.87 to 22.89.

B.S. IN ELECTRICAL ENGINEERING

Sep. 2010 — Jun. 2014

## Experience

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### Amazon Web Services (AWS)

SOFTWARE DEVELOPMENT ENGINEER

Vancouver, BC, Canada

Dec 2022 — Apr 2023

- Designed and developed a new full stack feature of micro-services for data center business workflow engine based on Camunda, Java, AWS Lambda, DynamoDB, S3, TypeScript, Redux, Node.js, which helps handling exceptions in business workflow in a predefined way.
- Worked with data center engineers to troubleshoot data center automation tools, enhance existing functionalities, and develop new features based on data center operation needs.

### Amazon Web Services (AWS)

SOFTWARE DEVELOPMENT ENGINEER

Bellevue, Washington

Feb 2020 — Nov 2022

- Developed website UI components and RESTful APIs with Redux, Node.js, DynamoDB, and Java backend to construct a user-friendly interface of Infor Enterprise Asset Management (EAM) system to facilitate data center operations, such as creation and update of assets and work orders, asset configuration and replacement, etc.
- Developed Javascript modification of Infor EAM frontend UI, i.e. Extensible Framework to control form content and enable frontend input validation for asset data, and developed EAM database poller based on Java to fetch, validate, and send new asset data to data consumer's AWS SQS.
- Designed and developed migration plan of existing EAM interface website from internal host services to native AWS services based on AWS Fargate for better support, extensibility, and integrability with other native AWS services.
- Designed and developed authentication and authorization based on API Gateway with Cognito authorizer for Redux-based single page application on CloudFront.

### Amazon Web Services (AWS)

SOFTWARE DEVELOPMENT ENGINEER INTERN

Bellevue, Washington

May 2019 — Aug. 2019

- Developed new website modules with React, Node.js (Babel and Webpack), and DynamoDB for new functionalities of waste storage and management interface for AWS data centers around the globe.
- Developed unit testing for website modules with Jest and Enzyme, and increased frontend unit test coverage from none to 50%.

## Skills

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### Programming

- Java: Spring, Guice, JUnit, TestNG, Mockito
- JavaScript/Typescript: Node.js, Webpack, Redux, React, Jest, Enzyme, AWS CDK
- Ruby: Ruby on Rails (RoR)
- Python: Django, Keras, TensorFlow, scikit-learn, Pandas
- C++, Lua (Torch), Shell Script
- Version control: Git

### System Management

- Cloud Services: AWS EC2, Fargate, Lambda, CloudFormation, CloudWatch, RDS, SNS, SQS, API Gateway, Cognito, CloudFront, S3
- Database: Amazon DynamoDB, Microsoft SQL Server, PostgreSQL, MySQL, Oracle SQL

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<sup>1</sup>Lang-Chi Yu, Hung-yi Lee, and Lin-shan Lee, “Abstractive Headline Generation for Spoken Content by Attentive Recurrent Neural Networks with ASR Error Modeling,” IEEE Workshop on Spoken Language Technology, Dec. 2016.