

# Ting-Yu (Frank) Yen

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## Education

### University of Texas at Austin

Austin, Texas

M.S. IN COMPUTER SCIENCE (GPA: 3.93/4.0)

Aug. 2019 - Dec. 2020

- Courses: Database Systems, Datacenters, Algorithm Techniques and Theory, Deep Learning Seminar, Natural Language Processing

### National Taiwan University

Taipei, Taiwan

B.S. IN COMPUTER SCIENCE (GPA: 3.61/4.3 ; Last 60 GPA: 4.13/4.3)

Sep. 2014 - Jun. 2018

- Courses: Natural Language Processing, Web Retrieval and Mining, Applied Deep Learning, Artificial Intelligence

## Honors & Awards

- |      |  |                  |
|------|--|------------------|
| 2018 | <b>Best Papers Award Nomination</b> , COLING 2018 ( <b>44/888, 5%</b> )  | Santa Fe., U.S.A |
| 2018 | <b>First Place</b> , Senior Project Contest of NTU CSIE  | Taipei, Taiwan   |
|      | Awarded <b>best</b> research project (out of 16 projects) by faculty vote and received <b>\$1,000</b> scholarship. |                  |
| 2018 | <b>Academic Presidential Award</b> , NTU CSIE Dept. (Spring'18)  | Taipei, Taiwan   |
|      | This award is given to student with ranking top <b>5%</b> in the department.                                       |                  |

## Experience

### Amazon Web Services (AWS), Software Development Engineer Intern

KEY SKILLS: JAVA, TYPESCRIPT, NODEJS, LAMBDA, API GATEWAY, S3, HTML, GIT

Jun. 2020 - Aug. 2020

- Engaged in **Security Hub**, which is a comprehensive console for AWS users to monitor **security alerts** and **security posture**.
- Designed a **feature flag mechanism** that allows our team to execute **A/B testings** on all accounts in our product at run-time.
- Constructed A/B testing tools on **AWS Lambda with Java**, used **API Gateway** to wrap it as **REST API**, and built **NodeJS Client** that utilizes Post request to interface between Lambda and our services' front-end and back-end.
- Wrote thorough **design documents** and **wiki** that describe workflows, architectures, and APIs of my tool.

### Microsoft, Software Development Engineer Intern

KEY SKILLS: JAVASCRIPT, JQUERY, DATABASE, ASP.NET, C, HTML, CSS, GIT, STACK OVERFLOW, PYTHON

Sep. 2017 - Jun. 2018

- Worked on **Bing** (<https://www.bing.com>), which is the second most popular search engine in the whole world.
- Upgraded **vital APIs** of internal platforms with intensive timeline, and presented my works during a **cross-country call**.
- Devised a new back-end workflow that combines multiple testing programs together, reducing over **40% of engineers' testing time**.
- Developed various new features and **revamped our tools' user interface** to enhance **user experience**.
- Composed **comprehensive documents** and finished lots of incomplete documents for internal programs and services.

### IBM, Software Development Engineer Intern

KEY SKILLS: DOCKER, NODEJS, HTML, MONGODB, TRAVISCI, CELERY, RABBITMQ, GIT, PYTHON

Jul. 2017 - Aug. 2017

- Revamped back-end of a parser product from a pipeline to **parallel workflow** to improve products' performance by more than **50%**.
- Brainstormed a solid **back-end framework** that distributes log messages to any specific parsers with the aid of **RabbitMQ**.
- Developed new features, merged these features to our product, and deployed the whole product to **docker**.
- Added python coding style linter into their **continuous integration** pipeline, which is **TravisCI**, to maintain coding style consistency.
- Hosted a sharing presentation to introduce **Google coding style** and demo the utilization of **Celery** to the whole team.

### Natural Language Processing Laboratory, Research Assistant

KEY SKILLS: NATURAL LANGUAGE PROCESSING, INFORMATION RETRIEVAL, LATEX, PYTHON

Sep. 2016 - Feb. 2019

- Presented a **generalized model** from an existing sense retrofitting model and outperformed previous approaches by **3%** in experiments.
- My research interest is **ontology embedding**, especially published a sense embedding study on **COLING18**. This paper was also nominated as **the best papers award** on COLING18. Ref: <https://reurl.cc/NVaYx>
- Papers accepted by COLING18, WWW18, CIKM17. Journals accepted by KAIS and JASIST.

## Publications

[1] Y.-Y. Lee\*, **T.-Y. Yen\***, H.-H. Huang, Y.-T. Shiue, and H.-H. Chen. "GenSense: A Generalized Sense Retrofitting Model." in Proceedings of the 27th International Conference on Computational Linguistics (COLING 2018), Aug. 2018. (acceptance rate: 37%)

p.s. \* indicates equal contribution