

Kuan-Yu Chen

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EDUCATION

Brandeis University, Waltham, MA Aug. 2018 – May 2020
Master of Science in Computer Science
Capstone Project for Software Engineering, Database Management Systems, Big Data Analysis, Natural Language Processing Systems, Information Retrieval, Operating Systems, Data Structures and Algorithms

National Taiwan University (NTU), Taipei, Taiwan Sept. 2010 – June 2014
Bachelor of Science in Life Science (Biology)
Language Technologies and Computational Linguistics, Biostatistics

COURSE PROJECTS

<https://github.com/chenky0401/>

Twitter-like Service Platform [Ruby on Rails, Heroku]

- Build and deploy a database driven web application using MVC design pattern
- Design and implement ORM and database architecture using ActiveRecord and PostgreSQL
- Manage the project with Scrum-like agile process framework working with a team of 4

Information Retrieval System for TED [Python, Flask, ElasticSearch]

- Built IR system that supports multi-field search on TED talks using ElasticSearch and Flask.
- Designed a TF-IDF based recommendation system and incorporated with multimedia results (video, Youtube comments, word cloud, etc.)

Non-Neural Named Entity Extractor [Python, pycrfsuite]

- Built NER system with Brown clusters and word embeddings features on CoNLL 2003 English data.
- Analyzed performance with different feature set configurations and achieved overall F1 score of 92.5.

Stochastic Simulation of Virus Population Dynamics [Python, Flask]

- Modeled and visualized patient receiving treatments and drug resistant virus in object-oriented way.
- Implemented backend server with Python Flask and interactive web GUI using simple Ajax.

Circuit Parsing and Optimization [C++]

- Created circuit parsers that construct And-Inverter Graphs (AIGs) from description files.
- Optimized circuits using post-order DFS and constant propagation.

EXPERIENCE

Graduate Teaching Assistant, Brandeis University Sept. 2019 – Dec. 2019
Introduction to Natural Language Processing with Python

- Hold weekly office hours to help students strengthen their Python skill and graded assignments.

Freelance Professional English/Mandarin Interpreter, Taipei, Taiwan Sept. 2015 – May 2018

- Collaborated with professionals from diverse industrial and cultural backgrounds.
- Provided consecutive and simultaneous interpretation services at technology conferences.

Mandatory Military Service, Taipei, Taiwan Oct. 2014 – Sept. 2015
Tri-Service General Hospital

- Assisted with the management of the Post-Graduate-Year Medical Training Program.

SKILLS

Programming languages: Python, Ruby, Java, C++, SQL, HTML5, CSS

Technical skills: Linux, Git, GitHub, Rails, Heroku, Flask, Apache Spark, NLTK

Languages: English (near native), Mandarin (native), Spanish & Taiwanese (conversational)

HONORS AND AWARDS

2014 International Youth Ambassadors of Taiwan, Ministry of Foreign Affairs July 2014