## U Chun (Jeff) LAO ucllao [at] gmail.com

# Experience

#### AI Engineer at HKAI Limited Hong Kong

Apr 2021 - Now

Research and develop the forecasting and ads recommendation components with modern deep learning approaches for the video advertisement platform.

#### Software Engineer at University of Hong Kong Hong Kong

Feb 2019 - Mar 2021

Design and implement the *Regbase* platform, which automatically collects financial open data and builds up a knowledge base.

### Software Engineer at Throput Limited Hong Kong

May 2018 - Jan 2019

Design and develop web application fin.fm that collects and analyzes financial open data.

### Software Engineer at Center for E-Commerce Infrastructure Development,

University of Hong Kong Hong Kong

Nov 2016 - Mar 2018

Upgraded the e-commerce messaging software <u>Hermes</u> to Java 8 and developed the web client Courier for Hermes.

### Education

University of Southern California Los Angeles, CA

Aug 2013 - May 2015

Master of Science in Computer Science with concentration in Intelligent Robotics

Cornell University Ithaca, NY

Aug 2011 - May 2012

Master of Engineering in Electrical and Computing Engineering

University of California, Berkeley Berkeley, CA

May 2009 - Aug 2011

Bachelor of Science, double major in Electrical Engineering and Computer Science, Engineering Physics

# **Selected Projects**

### Online Ads Impression Forecast

Apr 2021 - Now

Design and implement an ads impressions (number of views) forecast system as a micro-service component.

#### Regbase Platform

Feb 2019 - Mar 2021

The Regbase is a platform that collects financial open data in Hong Kong and composes a knowledge base on this information for other downstream applications. Responsible for the design, implementation and deployment of the platform as micro-services serving RESTful APIs and and <u>GraphQL</u> with <u>Docker</u> on <u>Kubernetes</u>. Also contributed to the data collection pipelines and NLP data processing using <u>Airflow</u>, <u>Django</u>, <u>flask</u>, and neural network based NLP tools like <u>transformers</u> with PyTorch.

Fin.fm May 2018 - Jan 2019

This web application collects publicly available financial information, processes and analyzes the loosely structured data with NLP and machine learning techniques.

Contributions include co-designing and developing the backend infrastructure and NLP / ML processing, as well as part of the web front-end development. Implemented in Python with  $\underline{\text{Docker}}$ .

Courier Web Client Feb 2017 - Mar 2018

This web client based on the new version of <u>Hermes</u>, written in Python with <u>flask</u> and <u>PoestgresDB</u>. The client is divided into <u>dockerized</u> microservices and ready for <u>ansible</u> deployment.

Contributions include designing and implementing some of the back-end microservices for the client.

## Hermes Business Messaging Gateway

Nov 2016 - Mar 2018

This project implements a new version of the open-sourced e-commerce messaging gateway <u>Hermes</u>, built by CECID back in 2007 for the HK government, upgrades the Java version from 6 to 8 and outdated dependencies.

### Skills

**Proficiency in:** C, C++, Python

Other programming languages: GO, JAVA, MATLAB, SQL, C#, Pascal, HTML, CSS, Javascript, IATEX

Experience with: Kubernetes, Docker, Apache Airflow, BERT

Knowledge in: AWS, Microsoft Azure, Docker Swarm, Pytorch, Ansible, Hadoop

## **Publication**

A. Köhn, U.C. Lao, A. Zadeh and K. Sagae, Parsing Morphologically Rich Languages with (Mostly) Off-The-Shelf Software and Word Vectors. In Proceedings of the 2014 Shared Task of the COLING Workshop on Statistical Parsing of Morphologically Rich Languages. 2014.