

PO-CHU CHEN

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EDUCATION

Master of Science in Computer Science

Sep. 2023 – Jun. 2025(Expected)

University of California, Riverside

Riverside, CA

- **Overall GPA:** 3.9/4.0
- **Related Courses:** High Performance Computing, Big-Data Management, Data Mining Techniques

Master of Arts in Economics

Sep. 2015 – Sep. 2018

Bachelor of Science in Agricultural Economics

Sep. 2009 – Sep. 2014

National Taiwan University

Taipei, Taiwan

- **Overall GPA:** 3.93/4.3 | **CS-related GPA:** 4.09/4.3

TECHNICAL SKILLS

- **Programming Languages:** Python, C/C++, R, JavaScript, Go, MATLAB
- **Database Management:** PostgreSQL, MySQL, Mssql, MongoDB, Redis, ELK stack, AWS S3
- **Deployment Tools:** Docker, Kubernetes, AWS, GCP, Azure, Jenkins
- **Big Data Ecosystem:** Hadoop, Hive, Hbase, Spark, Pyspark
- **Data Visualization:** Grafana, Kibana, Power BI

WORK EXPERIENCE

Senior Software Engineer in Data Backend

Jul. 2021 – Sep.2023

CTBC Bank

Taipei, Taiwan

- Developed over 50 web-crawlers and deployed [Address-Normalized API](#) and [CTBC Finance Crawler Platform](#) via **FastAPI(RESTful)**, deployed on **Azure** and **GCP** virtual machine
- Improved the speed and latency of querying API by 50% via **Redis** server
- Made model evaluation 60% faster by implementing **concurrency** and **parallelism**
- Stored model data on **Hadoop**, **Hive** and calculated consumer's score via **Spark**; reduced performance report generation time from 2 months to 1 day
- Released 58% of **Hadoop** YARN resources through effective insert-update partitioning on **Hive** table
- Deployed and monitored over 100 web-crawlers scheduled via **Airflow** service

Data Engineer

Sep. 2020 – Jul. 2021

LangLive Streaming

Taipei, Taiwan

- Established over 100 dashboards and 80 finance reports through **MongoDB**, **Redis**, and **MySQL**
- Automated data pipeline via **Jenkins CI/CD** reduced auditing from 2 weeks to 3 days
- Increased debugging efficiency by 50% by monitoring over 100 cronjobs via **ELK** and **Grafana**
- Enhanced 90% efficiency of computing cross-year summary statistics via **AWS S3** and **AWS Athena**
- Constructed test environment to increase stability of data cronjobs in **Kubernetes** by 30%

Data Scientist

Sep. 2018 – Apr. 2020

SinoPac Securities Corporation

Taipei, Taiwan

- Implemented **Facebook Ads**, reduced CPA from \$800 to \$100 through weekly analysis
- Collaborated with an ad agency, reduced CPC from \$50 to \$16 through weekly analysis of **Google Ads**
- Constructed the **Power BI** dashboard for monitoring the data from online application and provided the optimized solution, successfully decreased the processing time from online opening for 50 hours

SELECTED PROJECTS

Web Song Share

Mar. 2022 – Present

- Developed a website using Python that allows user to share and search free learning resources
- Designed RESTful backend server via Flask enabling shared resources stored in the cloud database
- Deployed the whole services on a containerized environment
- Inspired from struggling with searching the feasible learning resources on instruments and programming languages.
- Utilized: **Flask, Gunicorn, MySQL, Alembic, GCP VM, AWS RDS, Jenkins, Kubernetes**

Book Rating System

Mar. 2018 – Sep. 2018

Final Project: Capstone Project for Machine Learning Techniques

- Improved classification accuracy to 0.8 (versus classical statistics method: 0.6) with text feature extraction and machine learning models
- Designed web crawling system to speed up book metadata retrieval by 100-fold via multithreading

OPEN SOURCE CONTRIBUTIONS

Simplify Jobs Inc.

Sharing and keeping track of software, tech, CS, PM internships for Summer 2024

Jan. 2024

- [ISSUE#3172](#): Clarify required U.S. citizenship for intern role at Leidos
- [ISSUE#2348](#): Resolved ambiguous naming for intern role at LinkedIn
- [PR#2020](#): Shared summer analyst internship for BNP Paribas
- [PR#2276](#): Shared software engineer internship for Bytedance

Mentorship Roadmaps

General roadmaps for software developers

June. 2024

- [PR#586](#): Fixed typo in README.md document

RESEARCH EXPERIENCE

• Lab Project: **Ranking of Economics Journals: the 2019 Update**

Advisor: Prof. [Ming-Jen Lin](#)

- Ranked 337 international economic journals based on their impact factor by k-means method, which is calculated by their citations crawled on the JCR websites
- This ranking can be considered as a critical reference of qualifying economists' performance
- Published in *Taiwan Economic Review*

Sep. 2019

• Master's Thesis: **Predicting Consumers' Purchase Decision by Clickstream Data—A Machine Learning Approach**

Advisor: Prof. [Ming-Jen Lin](#)

- Crafted a cutting-edge consumer purchasing decision model leveraging **decision trees** and **random forests**, achieving an impressive 95% accuracy and 90% recall, effectively capturing nuanced consumer purchase behaviors
- Implemented data mining techniques, including sampling and cross-validation, to address imbalanced data challenges
- Award

* *Fubon Life Management Master Thesis Award in the Information Management*

Sep. 2018

* *Bank of Taiwan Finance and Economics Thesis Award, Merit Award*

Apr. 2018