

Po-Chia CHEN

SOFTWARE ENGINEER · BACKEND ENGINEER

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Summary

A Backend Developer with 2 years of experience in web development, infrastructure and data engineering fields in a Japanese start-up. Lead a small team to develop the essential features of a data analysis web service and its consequential infrastructure. Proficient in interfacing with internal/external customers to understand requirements, set priorities, and communicate direction and progress.

Prefer a command line interface environment as a fan of Neovim, lazygit, Alacritty, and macOS. Always trying to learn new technologies and tools, and customize my tools to find the optimal workflow and work environment.

Experience

Tenchijin

Tokyo, Japan

SOFTWARE ENGINEER

Oct. 2020 - Present

- **Lead a 3-member team, architect and develop an internal data catalog, and enhance 25% data usage inside company**, utilizing Golang, GraphQL and MongoDB. Collaborated with a frontend engineer to create a user-friendly UI. Mentor an intern on programming methodologies and best practices for API development.
- **Initiate, develop and maintain more than 15+ ETL pipelines with Airflow and GDAL**. Automate the ingestion of the latest satellite data into S3 datalake and transform it into formats fitting the need of the analysis team.
- Spearhead the creation of feature design document within the engineering team, aiming to enhance company members' understanding of new features and establishing efficient development practices.
- **Increase 30% of users by developing data models for backend system, and devising RESTful APIs for new features**, such as Memo/Project on "Compass Map" leveraging Django, Postgres, Redis, Prometheus, Grafana, and the AWS stack (including EC2, S3, RDS, and Lambda).
- Proactively containerize several projects inside company to optimize the scalability and deployment, **saving 20% time of regular deployment through GitHub Action**.
- Develop a machine learning system for continuous model evaluation, and model deployment through API services. Collaborate closely with the data scientist, automating the duplicated procedure through integrating their preprocessing procedures and algorithms into the pipeline system.
- Contribute to client's success, providing valuable insights from satellite and weather data analysis on optimal areas for agriculture product or potential construction spots, and contributing to successful decision-making processes.

Projects

Master Research

Tokyo, Japan

LONG-TERM PREDICTION ON HUMAN TRAJECTORY

Jun. 2019 - Jun. 2020

- Design and implement the preprocess procedure of trajectory data. Use a deep learning model to analyze the mobility pattern, and try to find out the pattern when people will be in the stations. Compare the performance of traditional statistic methodologies with the modern machine learning methodologies on long-term time series prediction problem.

2019 KDD Cup Competition Task1

Tokyo, Japan

RESPONSIBLE FOR FEATURE ENGINEERING AND BASELINE

Apr. 2019 - Jun. 2019

- Participate in a big data competition, focusing on predicting user choices for Baidu Map navigation recommendations. I clean and explore the large datasets, conduct feature engineering, and built a baseline model using LightGBM. Achieve a commendable rank of 143 out of 789 participants, with strong problem-solving abilities and expertise in data analysis and modeling.

Skills

Backend Airflow, Django, Flask, REST API, Redis, Postgres, Docker, AWS stack, GitHub Action, Prometheus, Grafana
Programming Python, Golang, Markdown, LaTeX
Languages Chinese (Native speaker), English (Business level), Japanese (Daily conversation, N2)

Education

University of Tokyo

Tokyo, Japan

MASTER IN SPATIAL INFORMATION SCIENCE

Oct. 2018 - Sept. 2020

- Research about long-term time series prediction on human trajectory

Harbin Institute of Technology

Harbin, China

B.S. IN CONTROL SCIENCE AND ENGINEERING

Sept. 2014 - May. 2018

- The second national scholarship (top 3) in 2016. The third national scholarship (top 6) in 2017.