Po-Chia **CHEN**

Software Engineer · Backend Engineer

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Summary

A Software Engineer with 4 years of experience in web development, infrastructure and data engineering fields in two start-ups. Have led 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

FLYWHEEL Inc. *Tokyo, Japan*

Software Engineer *Dec. 2023 - Present*

- **Build the ML pipeline of a PoC project to automate and enable the frequent experiments** based on the complicated customer conditions, utilizing dbt, dagster, bazel.
- **Develop and operate 200+ data pipeline jobs and sensors** under multiple data dependency requirement for client success, and **contribute to team's development logs/document to make the development process easier**.
- Enhance the team productivity by **migrating the part of the CI process across the whole organization**, avoiding unexpected python lint change and increase the linter speed in VS Code. In the same time, refactor and **remove 10+ unused configuration** related code in monorepo, keeping the code maintainability.
- Hold the Design Pattern workshop among engineers to keep the company learning atmosphere and enhance engineering ability as well as building engineer community.

Tenchijin *Tokyo, Japan*

Software Engineer *Oct. 2020 - Oct. 2023*

- **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 scalabity 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.

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.

Skills

Backend	Airflow/Dagster, dbt, bazel, Django/Flask, RESTful 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