



Tsai, Tsai-Chieh 蔡采潔

Full Stack Engineer

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SUMMARY

I'm a self-taught full-stack engineer committed to producing clean and stable code. With a passion for technology, I continuously explore new developments and share my knowledge with others. Additionally, I strive to create harmonious work environments for all team members.

SKILLS

Backend

- NodeJS
- ExpressJS
- RESTful APIs
- Python
- FastAPI
- Nginx
- PM2
- MySQL
- PostgreSQL
- Sequelize ORM
- NoSQL
- Redis
- Linux
- Pug
- Web Crawling
- Firebase

Cloud Service

- AWS EC2
- AWS S3
- AWS CDN
- AWS ELB
- Google GCE
- Google GAE
- Google GCF

Front-End

- HTML & CSS
- React
- Redux Toolkit
- RWD
- Bootstrap
- Ant Design
- Styled-components
- i18next
- Vitest

Tool

- Git / GitHub
- SourceTree
- SonarQube
- Docker
- Typescript
- ESLint
- Artillery
- Cheerio
- AJV

Others

- Matlab
- Unity

WORK EXPERIENCE

Ever Fortune.AI

Jan 2021 - Now

Software Engineer

- Built APIs with Python FastAPIs web framework, based on Pydantic type hints and Mypy type checker
- Self-learning and independent development with React and Typescript at a tight deadline (See Projects)

Gets-info (Startup)

Nov 2019 - Nov 2020

Backend Engineer

- Database table design and maintenance, and completed more than 20 APIs about sports events, CRUD for multiple user predictions
- Scheduler for crawling sports information, etc (See Projects)

AppWorks School

Jul 2019 - Oct 2019

Backend Trainee

- Built engineering mindset and problem-solving skills through 1000+ hours of immersive training and completed the personal project
- Enhanced communication skills through collaboration with Front-End and iOS members on «Stylish» (See Projects)
- Adopted Agile and Scrum Methodology on the personal project development to deliver features on time

National Chiao Tung University

Mar 2019 - Jul 2019

Research Assistant

- Wrote a paper based on Machine Learning for computer-aided diagnosis and prepared the submission to international journals

Ever Fortune.AI

Nov 2018 - Feb 2019

Assistant R&D engineer

- Adjusted deep learning models and parameters with Python
- Established an x-ray labeling system for doctors

EDUCATION

M.S. in Bioinformatics and Systems Biology

National Chiao Tung University

Sep 2016 - Aug 2018

- 4.1/4.3 GPA
- Main courses: «Machine Learning», «Image Processing»

B.S. in Engineering and Computer Science

Feng Chia University

Sep 2012 - Jun 2016

- 3.8/4 GPA
- The Phi Tau Phi Scholastic Honor Society Honorary member
- Academic Excellence Award (top 5% of class in semester) four times

PROJECTS

Query & Label System (Ever Fortune.AI's project)

Data Engineering and Labeling Technology Applications.

- Familiar with search API with multiple queries based on **RESTful** designed, like aggregate function, having clause
- Implement the concept of microservices by **Docker** Compose, each project communicates via API gateway
- Connect Google OAuth 2.0 API for third-party login and **JWT** token for native login
- Using the **Alembic** toolkit for auto-generating database migrations
- Infrastructure testing using **Pytest** before deployments

get-sport (company's project 搞運彩)

A platform that provides sports lottery analysis and predictions.

- Import **AJV** validation for input and redesign the project structure
- Chat room development with firebase realtime database
- Stable and clean code writing for APIs and scheduling
- Track and recover other senior engineers' errors and refactor code
- Supervisor fully trusted me to take control of the web-crawling server

GitHub: [sport-api](#), [sport-crawler](#)

Never Stray

An animal adoption platform that integrated the shelters and meet map in Taiwan. Users can quickly find pets through multiple search conditions or track the pets they are interested in.

Technologies:

- Using **Docker** makes any deployment consistent, portable, and scalable
- Scripts generated by **TypeORM** or manually are about database migration and initial essential elements of a database table in the database deployments
- Integrating **CodeDeploy** with GitHub for Amazon EC2 auto-deployment.
- **Node-schedule** and **Cheerio** for web crawling and frequent database updates
- Using **Redux Toolkit** for centralizing state management and simplifying many common use cases like creating reducer
- Eliminating the need to hand-write data fetching and caching logic yourself by using **RTK Query**
- Create a responsive design with **SCSS** and **styled-components**

URL: <https://never-stray-e15a5.web.app>

GitHub: <https://github.com/TsaiTsaiChieh/never-stray>

STYLISH

An e-commerce website system.

Technologies:

- Built **RESTful** APIs for product management, user sign-up and login
- Set **MySQL index** for search performances and **foreign key** for data relationship
- Connected third-party **TapPay** API for payment system
- Implemented customer service chat by **socket.io** for real-time communication between the server and client

GitHub: <https://github.com/TsaiTsaiChieh/stylish>

Insurance administration system

Solely responsible for the front-end logic of all pages

- Effectively communicate with the backend and adjust the APIs based on previous backend experience
- Utilize Redux Toolkit for centralized state management and simplifying many common use cases
- Optimizing network requests with Redux Toolkit Query elevates user experience
- Passed the initial rounds of vulnerability scanning and code detection during the first scan

