Kevin Chen (Yi-Chia Chen)

(530)648-7910 | kvnyijia@gmail.com | linkedin.com/in/kvnyijia | github.com/kvnyijia | kvnyijia.github.io | Pleasant Hill, CA

Skills

Programming: Go, Python, C++, C, C#, Java, JavaScript, TypeScript
Fullstack: Gin, Flask, Spring Boot, Hibernate, Node, Express, React, Next.js, REST API, GraphQL, gRPC
DevOps: Docker, Kubernetes, Postman, GitHub Actions CI
Cloud / DB: Postgres, MySQL, MongoDB, Redis, AWS (EC2, RDS, EKS, SQS, SNS, etc.)
Certification: AWS Certified Solutions Architect Associate

Education

Georgia Institute of Technology *Aug 2021 – May 2023*
Master of Science in Computer Science, GPA 3.5 *Atlanta, GA*
- **Coursework:** Machine Learning, Data Analytics, Blockchain, Networks, Info Security, Mobile Applications, Database

National Cheng Kung University *Sep 2015 – Jun 2020*
Bachelor of Science in Computer Science, GPA 3.5 *Tainan, Taiwan*
- **Coursework:** Object Oriented Programming, Computer Architecture, Operating Systems, Data Structures, Algorithms

Work Experience

Georgia Institute of Technology *Aug 2022 – Dec 2022*
Graduate Research Assistant *Atlanta, GA*
- Achieved parallelism in **C++** by using the parallel computing model **HClib**.
- Researched the concurrency model **Actor model** for distributed asynchronous computations.
- Conducted experiments on HClib-Actor programs and documented the behaviors of their parallel primitives.

Academia Sinica *Jul 2020 – Dec 2020*
Research Intern *Taipei, Taiwan*
- Constructed context-free parser using Brzozowski's derivative and **functional programming** with **Haskell**.
- Programmed a course website for the instructor to deliver materials to 100+ undergrads with **Haskell**.
- Performed formal verification using type systems with interactive proof assistant **Agda**.

PIXNET Digital Media Corporation *Aug 2019 – Dec 2019*
Data Analyst Intern *Taipei, Taiwan*
- Created dashboards to uncover marketing insights with **BigQuery**, **Data Studio**, **Python**, **R**, and **D3.js**.
- Automated the data import process from Google Sheets to **BigQuery** using **Matillion ETL** and **Python**.
- Proposed new website layouts to improve user experience and ad revenue by analyzing clickthrough rate.

Projects

"Mini Reddit" – Lightweight Content Rating System *May 2023 – Jun 2023*
Fullstack Web Application [github] [github]
- Developed a **Node Express** server with **Apollo GraphQL** middleware, backed by **Redis** and **Postgres**.
- Designed the **GraphQL** schema and resolvers using **TypeGraphQL** and **TypeScript**.
- Built a server-side rendered **React** web client in **Next.js** and **TypeScript**.

"Simple Bank" – Banking Service System Using Golang *Apr 2023 – May 2023*
Backend Web Application, Microservices [github]
- Launched **Golang Gin** backend with **REST APIs** and backed by **Postgres**, and used **JWT** for authentication.
- Verified correctness of APIs and CRUD operations by writing unit tests in **Golang** and using **Postman**.
- Deployed the service to **Kubernetes** clusters on **AWS EKS**, and established a production database on **AWS RDS**.
- Augmented the **Golang** backend with **gRPC** and **gRPC Gateway** using **Protocol Buffers**.

"Taste" – Mobile App for Finding Restaurants Based on Personal Preference *Oct 2022 – Dec 2022*
Mobile Application [github]
- Built and designed the frontend using **React Native**, integrating it with the **Python Flask** backend and **Postgres**.
- Implemented functionality to display nearby recommended restaurants on a map using **Google Map APIs**.

"THE ONE" – Interactive Book Recommendation System *Oct 2021 – Dec 2021*
Fullstack Web Application, Machine Learning [github]
- Developed a book recommender system by creating NLP models using **Python**, **sklearn**, **pandas** and **NLTK**.
- Launched a website that gets responses from **Python Flask** backend through **AJAX** requests using **jQuery** and **JavaScript**.
- Designed frontend with interactive visualization using **D3.js** and **JavaScript** to display popular books.

Air Quality Data Collection, Analysis, and Prediction from Scratch at NCKU *May 2019 – Sep 2019*
Data Analytics, Machine Learning [github] [github]
- Won 3rd Place in *2019 CSIE Department Research Project Competition*.
- Presented PM 2.5 forecasts with deviation $< 28\%$ by training machine learning models, including regression and time series analysis, with **Python** and **sklearn**.
- Collaborated in a team to containerize **MongoDB** and **Python Flask** server with **Docker** for data storage and retrieval.