Yi-Chia "Kevin" Chen

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Skills

Programming: C++, C, C#, Java, JavaScript, TypeScript, Python, Go
Fullstack: .NET, Flask, Gin, Node, Express, React, Next.js, REST API, GraphQL
Cloud/DevOps: Docker, Kubernetes, MS SQL Server, Postgres, MongoDB, Redis, Git, AWS (EC2, RDS, EKS, SQS, SNS, etc.)
Certifications: 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 utilizing 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

"Finance Hero" – A Simple Budgeting App Jun 2018 – Jul 2018
C# .NET Application, Object Oriented Programming [github]
- Built and designed the app with a minigame inside using **C#** following OOP principles.
- Integrated the app with **Microsoft SQL Server** database to store user spending and game records.
- Visualized a user's monthly spending by category in pie chart with **ASP.NET** Chart control.

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

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

"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 **Flask** backend and **Postgres**.
- Implemented functionality to display nearby recommended restaurants on a map using **Google Map APIs**.

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 **Flask** server with **Docker** for data storage and retrieval.