

Yi-Chia “Kevin” Chen

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SKILLS

Programming: C++, C, C#, Java, JavaScript, TypeScript, Python, Go
Fullstack: Spring Boot, Flask, Gin, Node, Express, React, Next.js, REST API, GraphQL
DevOps: Linux, CMake, Boost, STL, GDB, Postman, Docker, Kubernetes, Git, 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 App, 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

“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**.

“I Love Mining” – A Puzzle Solver Mar 2022 – Apr 2022
C++ Multi-Threading [\[github\]](#)
• Implemented ABI encoding of 256-bit unsigned integers using **Boost** and performed coin mining on an Ethereum smart contract using **C++ multi-threading**.

“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 the website that retrieves data from **Flask** backend through **AJAX** requests using **jQuery**.
• Designed an interactive visualization frontend using **D3.js** 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 **Flask** server with **Docker** for data storage and retrieval.