# Yi-Chia "Kevin" Chen

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github.com/kvnyijia kvnyijia.github.io

#### SKILLS

**Programming:** Java, JavaScript, TypeScript, Python, Go, C++, C, C#

**Fullstack:** Spring Boot, Flask, Gin, Node, Express, React, Next.js, REST API, GraphQL

Cloud/DevOps: Docker, Kubernetes, Postgres, MySQL, 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**

### "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 **GraphOL** schema and resolvers using **TypeGraphOL** 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, enabling users to manage bank accounts.
- 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.

#### "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.** is 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</li> 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.