# Yi-Chia "Kevin" Chen

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## SKILLS

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

.NET, Flask, Gin, Node, Express, React, Next.js, REST API, GraphQL Fullstack:

Cloud/DevOps: Docker, Kubernetes, MS SQL Server, Postgres, MongoDB, Redis, Git, AWS (EKS, ECR, EC2, RDS, 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

- Implemented message-passing programs for distributed systems using actor model with C++ parallel programming library HClib.
- Conducted research on HClib-Actor programs and documented the usage of its primitive constructs.

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 SOL 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**, 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.

## 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.