

# Yi-Chia "Kevin" Chen

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## PROFESSIONAL EXPERIENCE

### Georgia Institute of Technology

Atlanta, GA

*Graduate Research Assistant*

Aug 2022 – Present

- Implementing message-passing programs with **C++** task-based parallel programming model **HClib**.
- Reviewing Actor-based programming systems and establishing formalism of its termination logic.

### Academia Sinica

Taipei, Taiwan

*Research Intern*

July 2020 – Dec 2020

- Researched Brzozowski's derivative and parser combinators to construct context-free parser using functional programming with **Haskell**.
- Studied how to do formal verification using type systems with interactive proof assistant **Agda**.
- Built a course website for the instructor to deliver materials to **100+** undergrads with **Hakyll**.

### PIXNET Digital Media Corporation

Taipei, Taiwan

*Data Analyst Intern*

Aug 2019 – Dec 2019

- Created dashboards to uncover marketing insights with **BigQuery**, **Data Studio**, **Python**, **R**, and **D3.js**.
- Automated the process of importing data from Google Sheets to **BigQuery** with **Matillion ETL** and **Python**.
- Presented new website layouts to improve user experience and ad revenue by analyzing clickthrough rate.

## EDUCATION

### Georgia Institute of Technology

Atlanta, GA

*Master of Science in Computer Science, GPA 3.7*

Aug 2021 – Expected May 2023

- Coursework: Mobile Development (React Native), Database Systems (MySQL), Machine Learning, Networks, Data & Visual Analytics (PySpark, Scala), Blockchain & Cryptos (Solidity, Web3.js)

### National Cheng Kung University

Tainan, Taiwan

*Bachelor of Science in Computer Science, GPA 3.5*

Sep 2015 – June 2020

- Coursework: Data Structures, Algorithms, Object-Oriented Design (C++, C#), Operating Systems (C), Computer Architecture, Data Mining (Python)

## TECHNICAL SKILLS

<b>Programming</b>	C++, Java, Python, JavaScript, HTML, CSS, SQL, C, C#
<b>Frameworks</b>	React.js, D3.js, Node.js, Flask, jQuery
<b>Software</b>	MySQL, MongoDB, Docker, GCP, Linux, ASP.NET, REST APIs, AJAX

## KEY PROJECTS

### Banking Management Service System

- Collaborated with teammates to construct backend that conformed to **REST APIs** using **Node.js** (Express.js) and design responsive frontend using **React.js**.
- Implemented stored procedures and virtual tables to manipulate data and display stats using **MySQL**.

### "THE ONE" – Interactive Book Recommendation System

- Built the website that retrieved data from **Flask** backend by performing **AJAX** requests with **jQuery**.
- Developed NLP model to recommend books with **scikit-learn**, and visualized results with **D3.js**.

### Air Quality Data Collection, Analysis, and Prediction from Scratch at NCKU

- **Award: 3rd Place** of 2019 CSIE Department Research Project Competition.
- Collaborated with teammates to host **MongoDB** and **Flask** server on **Docker** for data storage and retrieval; collected **4-month** meteorological data using sensors paired to **Arduino**.
- Created a CLI tool for data visualization with **Python** to analyze air quality patterns.
- Developed PM 2.5 forecasts with deviation **less than 28%** by training **machine learning** models, including regression and time series analysis.

### "Finance Hero" – A Simple Budgeting App

- 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.