Yi-Chia "Kevin" Chen

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SKILLS

- C++, C, Python, Java, HTML, CSS, JavaScript, React.js, D3.js, Node.js, Flask, jQuery, SQL, Scala
- MySQL, MongoDB, Docker, React Native, C# .NET, REST APIs, AJAX, GCP, Linux, OOP
- Web Development, Mobile Development, Machine Learning, Parallel Computing

PROFESSIONAL EXPERIENCE

Georgia Institute of Technology
Graduate Research Assistant

Atlanta, GA
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
Research Intern

Taipei, Taiwan
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 **Haskell**.

PIXNET Digital Media Corporation
Data Analyst Intern

Taipei, Taiwan
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
Master of Science in Computer Science, GPA 3.7

Atlanta, GA
Aug 2021 – Expected May 2023

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

National Cheng Kung University
Bachelor of Science in Computer Science, GPA 3.5

Tainan, Taiwan
Sep 2015 – June 2020

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

KEY PROJECTS

"THE ONE" – Interactive Book Recommendation System [github] [demo]

- 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**.

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**.

Air Quality Data Collection, Analysis, and Prediction from Scratch at NCKU [github] [CLI]

- **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 [github]

- 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.