Yi-Chia "Kevin" Chen

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Skills

Programming	C++, C, C#, Python, Java, JavaScript, React, React Native, Node.js, HTML, CSS, SQL
Technologies	MySQL, MongoDB, Docker, AWS, .NET, Flask, D3, jQuery, REST, AJAX, Linux
Others	Fullstack, Mobile, Machine Learning, Parallel Computing, Distributed Systems

Education

Georgia Institute of Technology — Atlanta, GA
Master of Science in Computer Science, GPA 3.6 — Aug 2021 – May 2023
- Machine Learning (Keras, scikit-learn, NumPy), Data & Visual Analytics (Scala, PySpark), Networks, Blockchain & Cryptos (Solidity, Web3.js), Mobile Development (React Native), Database (MySQL)

National Cheng Kung University — Tainan, Taiwan
Bachelor of Science in Computer Science, GPA 3.5 — Sep 2015 – June 2020
- Data Structures, Algorithms, Object Oriented Programming (C++, C#), Operating Systems (C)

Work Experience

Georgia Institute of Technology — Atlanta, GA
Graduate Research Assistant — Aug 2022 – Dec 2022
- Implemented message-passing programs for distributed systems using **actor model** with **C++** parallel programming library **HClib**.
- Researched HClib-Actor programs, and documented the usages of its primitive constructs.

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**.
- Programmed a course website for the instructor to deliver materials to **100+** undergrads with **Haskell**.
- Studied how to do formal verification using type systems with interactive proof assistant **Agda**.

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**.
- Proposed new website layouts to improve user experience and ad revenue by analyzing clickthrough rate.

Key Projects

"THE ONE" – Interactive Book Recommendation System — Oct 2021 – Dec 2021
Fullstack Web Application, Machine Learning [github]
- Launched the website that retrieved data from **Flask** backend by performing **AJAX** requests with **jQuery**.
- Developed book recommender by creating NLP model with **scikit-learn**, and visualized results with **D3.js**.

"Taste" – Mobile App for Finding Restaurants Based on Personal Preference — Oct 2022 – Dec 2022
Mobile Application [github]
- Built and designed the frontend with **React Native**, and developed map features with **Google Map APIs**.
- Collaborated with teammates to integrated the app with backend that conformed to **REST APIs** using **Flask** and **Postgres**.

Air Quality Data Collection, Analysis, and Prediction from Scratch at NCKU — May 2019 – Sep 2019
Data Analysis, Machine Learning [github] [CLI]
- Won **3rd Place** of *2019 CSIE Department Research Project Competition*.
- Created a CLI tool for data visualization with **Python** to analyze air quality patterns.
- Presented PM 2.5 forecasts with deviation $<$ **28%** by training **machine learning** models, including regression and time series analysis.
- Worked in group to containerize **MongoDB** and **Flask** server with **Docker** for data storage and retrieval; collected **4-month** meteorological data using sensors paired to **Arduino**.

"Finance Hero" – A Simple Budgeting App — June 2018 – July 2018
Windows Form Application [github]
- Built and 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.