# Yi-Chia "Kevin" Chen

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### SKILLS

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

#### 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**.
- o Proposed 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 3.6

Aug 2021 - May 2023

o 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)

#### Key Projects

# "THE ONE" - Interactive Book Recommendation System

Fullstack Web Application, Machine Learning [github]

- o 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

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

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

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.