Yi-Chia "Kevin" Chen

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SKILLS

Programming: Java, JavaScript, TypeScript, Python, Go, C++, C, C#
Certifications: AWS Certified Solutions Architect Associate (EKS, ECR, EC2, RDS)
Software: Docker, Kubernetes, Postgres, MySQL, SQL Server, .NET, Unity 3D, Unix/Linux, Git
Fullstack: MongoDB, Express, React, React Native, Node, Flask, REST API, GraphQL, jQuery, AJAX

EDUCATION

Georgia Institute of Technology
Master of Science in Computer Science, GPA 3.5
Aug 2021 – May 2023
Atlanta, GA
- **Coursework:** Machine Learning, Data Analytics, Blockchain, Networks, Info Security, Mobile Applications, Database

National Cheng Kung University
Bachelor of Science in Computer Science, GPA 3.5
Sep 2015 – Jun 2020
Tainan, Taiwan
- **Coursework:** Object Oriented Programming, Computer Architecture, Operating Systems, Data Structures, Algorithms

WORK EXPERIENCE

Georgia Institute of Technology
Graduate Research Assistant
Aug 2022 – Dec 2022
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
Research Intern
Jul 2020 – Dec 2020
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
Data Analyst Intern
Aug 2019 – Dec 2019
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

"Mini Reddit" – Lightweight Content Rating System
Fullstack Web Application [github] [github]
May 2023 – Jun 2023
- 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
Backend Web Application, Microservices [github]
Apr 2023 – May 2023
- Developed and launched **Go** backend with **REST APIs** using **Gin**, enabling users to manage bank accounts.
- Ensured the proper functionality of APIs and CRUD operations on **Postgres** by implementing unit tests in **Go**.
- Deployed the service to **Kubernetes** clusters on **AWS EKS** and established a production database on **AWS RDS**.

"THE ONE" – Interactive Book Recommendation System
Fullstack Web Application, Machine Learning [github]
Oct 2021 – Dec 2021
- Developed a book recommender system by creating NLP models using **Python**, **sklearn**, **pandas** and **NLTK**.
- Launched the website that retrieves data from **Flask** backend through **AJAX** requests using **jQuery**.
- Designed an interactive visualization frontend using **D3.js** to display popular books.

Air Quality Data Collection, Analysis, and Prediction from Scratch at NCKU
Data Analytics, Machine Learning [github] [github]
May 2019 – Sep 2019
- 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.

"Finance Hero" – A Simple Budgeting App
C# .NET Application, Object Oriented Programming [github]
Jun 2018 – Jul 2018
- 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.