Kevin Chen (Yi-Chia Chen)

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Skills

Languages: Python, Go, C++, C, C#, Java, JavaScript, TypeScript **Certificate:** AWS Certified Solutions Architect Associate
Machine Learning: Keras, TensorFlow, PyTorch, sklearn, NumPy, NLTK, OpenCV
DevOps: JUnit, Maven, IntelliJ, Linux, CMake, Boost, GDB, Postman, Docker, Kubernetes, GitHub Actions CI
Fullstack: Flask, Gin, Spring Boot, Hibernate, Node, Express, React, Next.js, REST API, GraphQL, gRPC
Cloud/DB: SQL, Postgres, MySQL, MongoDB, Redis, Matillion ETL, AWS (EC2, RDS, EKS), GCP (BigQuery, Data Studio)

Education

Georgia Institute of Technology *Aug 2021 – May 2023*
Master of Science in Computer Science | *GPA 3.5* *Atlanta, GA*
- **Coursework:** Machine Learning, Data Analytics (Tableau, Spark, Scala, Databricks), Blockchain, Info Security, Algorithms

National Cheng Kung University *Sep 2015 – Jun 2020*
Bachelor of Science in Computer Science | *GPA 3.5* *Tainan, Taiwan*
- **Coursework:** Image Processing, Data Mining, Probability & Statistics, Data Structures, Object Oriented Programming

Experience

AeroTract, LLC *Sep 2023 – Present*
Software Engineer Intern *Albany, OR*
- Developed a web app from scratch for fine-tuning machine learning configurations using **TypeScript**, **React** and Bootstrap.
- Implemented backend APIs and SDKs using **Python Flask**, and made custom exception classes for error handling.

Georgia Institute of Technology *Aug 2022 – Dec 2022*
Graduate Research Assistant *Atlanta, GA*
- Achieved parallelism in **C++** by using the parallel computing model **HClib** following **Object Oriented** design patterns.
- Researched the concurrency model **Actor model** for distributed asynchronous computations.
- Conducted experiments on HClib-Actor programs and documented the behaviors of their parallel primitives.

Academia Sinica *Jul 2020 – Dec 2020*
Research Intern *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 *Aug 2019 – Dec 2019*
Data Analyst Intern *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

"Words" – Flashcard Maker | *Spring Boot, Hibernate, JUnit, Object Oriented Programming* [github] [github] *Sep 2023 – Oct 2023*
- Created a **Java Spring Boot** backend following OOP principles, including implementing **REST APIs** to service a **Next.js** web client that turns word definitions into flashcards, and using **JPA** and **Hibernate** to query data from **Postgres**.
- Implemented a secure login service, authentication and authorization using **Bcrypt**, **JWT** and Spring Security Filter.

"Simple Bank" – Banking Service System | *Golang, AWS, gRPC, Microservices* [github] *Apr 2023 – May 2023*
- Built a CI/CD pipeline to automatically run unit tests written in **Golang**, deploy the service to **Kubernetes** clusters on **AWS EKS**, and establish a production database on **AWS RDS**.
- Launched **Golang Gin** backend with **REST APIs** and backed by **Postgres**, and used **PASETO** for authentication.
- Augmented the **Golang** backend with **gRPC** and **gRPC Gateway** using **Protocol Buffers**.

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

Tagging of Thesis | *Deep Learning, Natural Language Processing* [github] *Dec 2019 – Jan 2020*
- Trained the dataset with Neural Network models, including **RoBERTa**, **XLNet**, **LSTM**, and **GRU**, and achieved **70%** F1-score on tags prediction task, using **PyTorch** and **Simple Transformers**.