

# YI-CHIA (KEVIN) CHEN

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## EDUCATION

### Georgia Institute of Technology

M.S. in Computer Science, GPA 4.0/4.0

Atlanta, GA

Aug 2021 – Expected May 2023

- **Courses:** Data & Visual Analytics, Machine Learning, Software Analysis & Test, Intro to Grad Algorithms.

### National Cheng Kung University (NCKU)

B.S. in Computer Science and Information Engineering (CSIE), GPA 3.55/4.3

Tainan, Taiwan

Sep 2015 – Jun 2020

- **Courses:** Data Mining, Fundamentals of Data Analytics, Intro to Database Systems.

## WORK EXPERIENCE

### Institute of Information Science, Academia Sinica

Research Intern, Skills: Haskell, Hakyll, Program Derivation, Functional Programming

Taipei, Taiwan

Jul 2020 – Dec 2020

- Researched Brzozowski's derivative and parser combinators to solve parsing problems, then developed programs and derived solutions from formal specifications using Haskell.
- Built a course website that is easy for the instructor to update announcements for an undergraduate course using Hakyll and Pandoc library, which can readily compile markdown and TeX to HTML.

### PIXNET Digital Media Corporation

Data Analyst Intern, Skills: Python, R, SQL, BigQuery, DataStudio, Matillion

Taipei, Taiwan

Aug 2019 – Dec 2019

- Retrieved data from BigQuery database using SQL, and created statistical graphics for evaluating marketing results using Python, R, and DataStudio.
- Analyzed user behavior, such as clickthrough rate (CTR) of links and ads, on the mobile blogging platform, then gave suggestions for improving the website layout.
- Reduced labor costs by streamlining the workflow of importing data from Google Sheets to BigQuery using Matillion.

## PROJECTS

### Air Quality Data Collection, Analysis, and Prediction from Scratch at NCKU

Dec 2018 – Sep 2019

Skills: NumPy, pandas, matplotlib, seaborn, scikit-learn, beautiful soup, Data Analysis, Data Visualization, Machine Learning

- Collected, cleaned, and preprocessed 4 months of meteorological data using NumPy and pandas.
- Visualized data using matplotlib and seaborn, then gained insights into patterns in the periodic changes in data and correlations between attributes.
- Investigated other weather factors influencing air quality, then crawled them from the Taiwan Weather Bureau using beautiful soup for model training and reduced the deviation of the model by 1%.
- Built a multivariate linear regression model for next-hour PM 2.5 forecasts with root-mean-square error (RMSE) within 4.5  $\mu\text{g}/\text{m}^3$ , using scikit-learn.
- **Award:** 3rd Place of 2019 CSIE Department Research Project Competition.

### CS: APP Data Lab

Nov 2018

Skills: C, Bitwise Operation, Floating-Point Arithmetic

- Implemented hundreds of integer operations using only C's add, logical not, and bitwise operators, within limited steps.
- Implemented floating-point operations using only C's signed and unsigned integer data type, without casting.

### Finance Hero: A Simple Budgeting App

Jun 2018

Skills: C#, SQL, ASP.NET, Window Programming, Object-Oriented Programming, Relational Database

- Built a C# Windows Form app to record user's daily spending, and developed a small game in the app to make expense tracking more enjoyable.
- Used Microsoft SQL Server database to store spending and game records, and used ASP.NET charts to visualize budgets.

### My Blog: kvnyijia's Notes

Nov 2020 – Present

Skills: HTML, CSS, Web Design

- Adopted responsive web design by using CSS to make the website compatible on all devices.

## SKILLS

### Programming Languages

C, C++, C#, Python, R, SQL, JavaScript, HTML, CSS, Haskell, Agda.

### Tools

Git, BigQuery, DataStudio, Matillion, D3.js, Hakyll.