

# YI-CHIA CHEN

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## EDUCATION

**National Cheng Kung University (NCKU) - Tainan, Taiwan**  
B.S. in Computer Science and Information Engineering (CSIE)

*September 2015 – June 2020*

- Overall GPA 3.55/4.3 (**Last-60 GPA 4.01/4.3**)
- Transferred from the Department of Engineering Science (2017).

## WORK EXPERIENCE

**Institute of Information Science, Academia Sinica - Taipei, Taiwan**

*July 2020 – December 2020*

Part-Time RA in Programming Languages and Formal Methods Lab (Advisor: Prof. Shin-Cheng Mu)

- Researched parsing with Brzozowski's derivative and parser combinators.
- Researched program derivation problems; namely deriving solutions from their specifications using Haskell.
- Built a course website for the National Taiwan University course: Programming Languages, using a Haskell library called Hakyll.

**PIXNET Digital Media Corporation - Taipei, Taiwan**

*August 2019 – December 2019*

Intern in Data Analysis Team (worked remotely)

- Analyzed data and created statistical graphics for evaluating marketing results using Python, R, and DataStudio.
- Analyzed user behavior on the mobile blogging platform, then gave suggestions for improving the website layout.
- Helped streamline the workflow of importing data from Google Sheets to BigQuery using Matillion.

## RESEARCH

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

*December 2018 – September 2019*

Undergraduate in Biomedical Imaging Lab (Advisor: Prof. Ming-Long Wu)

- Preprocessed the data we collected ourselves for the purpose of analysis and training.
- Analyzed the data, and found patterns in the periodic changes of air quality and correlations between attributes.
- Designed a program that could visualize the data using Python.
- Built a prediction model for next-hour PM 2.5 forecasts with deviation within  $4.5 \mu\text{g}/\text{m}^3$ .
- Investigated other factors that could influence air quality, then added corresponding data sourced from the Weather Bureau to the process of training in an effort to improve the model.

**KEY ACHIEVEMENT: Won 3rd Place in CSIE Department Research Project Competition.**

## HONORS & AWARDS

**Ranked Top 25%, AI CUP 2019: Artificial Intelligence Analysis and Classification of Thesis**  
**3rd Place, CSIE Department Research Project Competition** (air quality research)

*April 2020*  
*September 2019*

## SKILLS

<b>Programming Language</b>	C/C++, Python, Haskell. (Elementary in Agda, R, SQL, C#)
<b>Tools</b>	Git, Hakyll, BigQuery, DataStudio, Matillion.
<b>Languages</b>	Chinese (native), English (fluent), French (basic).

## LEADERSHIP EXPERIENCE

**Astronomy Club, NCKU - Tainan, Taiwan**

*September 2015 – June 2017*

Vice Director (2017), Event Coordinator (2016), Member (2015)

- Organized 4 camping activities, 2 trips, and numerous stargazing activities.