Kuan-Chen Chen

Mobile: +886-986-217-050 │ E-mail:champion3.chen@gmail.com

28-1F, No. 42, Huanhe Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)

EDUCATION

National Sun Yat-Sen University (NSYSU), Kaohsiung (Sept. 2019 – June 2023)
Bachelor of Science, Major in Applied Mathematics
GPA: 3.17/4.3 (77.70/100) | **Last 60 credits:** 3.89/4.3 (87.17/100)

- Data Science interdisciplinary Program
- Smart City and Smart Mobility interdisciplinary Program

RESEARCH EXPERIENCE

Planning Science Lab, NSYSU (Sept. 2022 – June 2023)

- **Student Researcher** (20 hours per week)
  - Developed a Python script to automatically fetch data from online APIs, populating a database and ensuring 24/7 operation.
  - Developed a combined ARIMA-LSTM model to forecast passenger counts on campus buses, incorporating data preprocessing for enhanced accuracy.
  - Engaged in effective communication with the university regarding our findings, leading to the adoption of our adjusted bus schedule, which addressed issues of resource wastage.

Research Center for Kaohsiung-Pingtung-Penghu Regional Transport Development,
Kaohsiung (Sept. 2022 – June 2023)

- **Student Research Assistant** (16 hours per week)
  - Conducted preprocessing tasks ensuring dataset quality.
  - Analyzed the frequency, type, and volume of vehicles on specified road sections. This included categorizing different modes of transportation such as buses, cars, motorcycles, MRT, and bicycles.
  - Utilized data visualization by Python's "Matplotlib" and "Seaborn" to graphically represent the traffic flow of different transportation modes across various time slots.
  - Actively contributed to the writing and revision of research reports, emphasizing the implications of data findings on regional transportation strategies.

WORK EXPERIENCE

Glory Integrated Marketing Co. Ltd, Taipei (Aug. 2023 – Oct. 2023)

- **Data Analyst Intern**
  - Data Collection and Analysis: Extract and analyze page view data from the client's social media platforms (Facebook, Instagram, Blog).
  - Keyword Strategy: Research the frequency of keyword appearances within existing content and its correlation with page views to identify potential keywords for the Google SEO.

Office of Student Affairs, NSYSU (Feb. 2022 – June 2023)

- **Office Assistant**

PROJECT EXPERIENCE

Climate Change Innovation Competition, The Ministry of Education, Taipei (Oct. 2022 – May. 2023)

- **Leader of Calming Campus Project Team**
  - Aimed to design a "Humanity-oriented" campus targeting "Net Zero" emissions and "Vision Zero" traffic fatalities.
  - Developed the DARTS system integrating pedestrian flow and bicycle prediction models.
  - Shared Bicycle Prediction Model achieved an accuracy rate of 86.1%.

- Advanced to the finals among 121 teams

Course: Python and Machine Learning Algorithms, NSYSU (Feb. 2022 – June 2022)
- **Linear Regression Health Costs Calculator**
  - The developed model yielded a Mean Absolute Error (MAE) under $3,500 when evaluated against the test dataset, fulfilling the project's specified accuracy criteria.
  - Utilized a regression algorithm on a provided dataset to predict individual healthcare expenses based on demographic and health metrics.

- **Cat and Dog Image Classifier**
  - Developed a Convolutional Neural Network (CNN) using **"TensorFlow 2.0"** and **"Keras",** with an accuracy rate of 76.4%.
  - Implemented advanced data augmentation techniques using "**ImageDataGenerator**" to mitigate overfitting due to the limited dataset, enhancing model generalization

Course: Practical and Innovative Analytics in Data Science, NSYSU (Feb. 2023 – June 2023)
- **Roman Number Character Recognition Project**
  - Used Python to augment the limited image dataset through techniques such as rotation, enlargement, reduction, and flipping for increasing data volume.
  - Implemented a modified "**ResNet50 CNN**", with flexibility to modify up to 10,000 images.
  - Managed a fully labeled training set and tested on a subset of 400 characters, achieving an accuracy rate of 69.4%.

HONOR & LEADERSHIP

The Valedictorian of Department of Applied Mathematics, NSYSU (June 2023)
- Represented the Department of Applied Mathematics at the graduation ceremony to receive the diploma on stage from the university President.

Academic Scholarship of PC Labor Organization, New Taipei City (2023)

Distinguished Service Award, NSYSU (Sept. 2020 – Jan. 2021)

Student Association, NSYSU
- **Minister of Student Club Association Department** (June 2020 – May 2021)
  - Sponsors of the campus club exposition, led 63 clubs in an event with over 1,000 participants.
  - Organized a week-long market and performances with over 2,000 attendees.
- **Student Club Funds Auditing Committee, NSYSU** (Aug. 2020 – July 2021)
  - Chairman
- **Student Club Evaluation Committee, NSYSU** (Aug. 2020 – July 2021)
  - Chairman

CERTIFICATES

Coursera: IBM Data Science Professional Certificate (Feb. 2023 – July 2023)
Coursera: Advanced Data Science with IBM Professional Certificate (Oct. 2023 – Dec. 2023)
FREECODECAMP: Machine Learning with Python (Feb. 2021 – June 2021)

VOLUNTEER WORK

Ying-Ming Junior High School, Kaohsiung (Sept. 2020 – Jan. 2021)
- **Teacher assistant of science experiment**

TECHNICAL SKILLS

Programming Language: Python, R, SQL, C, C++,Apache Spark
Visualization: Power Bi, Matplotlib, ggplot2