

Kuan Wei Yu

Queens, NY | 347-612-8515 | kwy232@nyu.edu | www.linkedin.com/in/kuanweiyu | <https://github.com/kwy518>

EDUCATION

New York University

Brooklyn, NY

Master of Science in Computer Engineering

May 2021

Courses: Machine Learning, Data Structures, Algorithms, Internet Protocols, Computer Architecture, Embedded System

National Taiwan University

Taipei, Taiwan

Bachelor of Science in Physics

June 2018

Courses: Data Science in Python, Computer Programming (C#)

SKILLS

Programming Language: Java, Python, C#, C/C++, MATLAB, LabVIEW, FORTRAN

Web: HTML, CSS, Javascript, HTTP, Flask, Node.js

Tools: AWS, Tensorflow, OpenCV, Matplotlib, Scikit-learn, Pandas, Git, Tableau

WORK EXPERIENCE

New York University IT

New York, NY

Software Engineer Intern

Jan. 2020 – Present

- Currently working on ETL processing, maintaining the database from a variety of data sources, utilizing **Python** to develop multithreaded data processing algorithms on **AWS EC2**
- Created **Web Crawler**, parsed HTML by **Python** to scrape daily reports from NYU online server and developed the real-time report updated system with Google Drive API
- Developed NYU IT website by **Python Flask**, designed front-end with **Bootstrap** package, created back-end functions such as search engine, login system, and automatically updated system, deployed the whole flask application on **AWS Elastic Beanstalk**

Wasserman Center for Career Development

New York, NY

Data Research Lead

Oct. 2019 – Nov. 2020

- Reduced 50% time of NYU Alumni data collection by scraping the data from career center database with **Python**
- Analyzed and visualized various data sources from career center database by **Tableau**, enhancing knowledge rates

ACADEMIC PROJECTS

Amazon Products Searching BOT (UiPath, Python)

Mar. 2020

- Used **UiPath** to develop the automatic website scraping tools, including searching products, login systems
- Used Google speech recognition API to implement voice searching function
- Processing scraping data by **Python** with Pandas library and automatically email results to the user

Self Driving Car Nanodegree Program – Computer Vision & Deep Learning (Python)

Jan. 2020

- Used **OpenCV** to identify lane lines on the road of a video stream through camera calibration, perspective transformation
- Built a convolutional neural network classifier in **Tensorflow** for classifying traffic signs

Assembler Emulator Project (C++)

Dec. 2019

- Implemented a MIPS 5-stage pipeline with forwarding and branch prediction in **C++**
- Built branch predictor by bitwise control and achieved maximum theoretical memory efficiency

RESEARCH EXPERIENCE

Institute of Physics, Academia Sinica

Taipei, Taiwan

Research Assistant

Jan. 2017 – Sep. 2017

- Built the simulation environments on **Geant4 (C++)** and simulated the penetration of cosmic rays by the observational data
- Plotted the data collected by simulation, analyzed the results, and calculated the distribution of particles by **Python**
- Implemented a novel algorithm and improved on the simulation process, thus reduced **33%** of running time, improved **20%** of accuracy on recording simulation results and distinguished the repeatedly recorded data