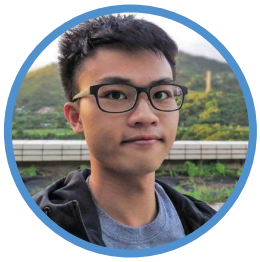
Pin-Yen Huang

Undergraduate Student

I am a 3rd year Undergraduate Student in the Department of Computer Science at National Chengchi University, Taipei City, Taiwan. I'm deeply interest in the study of Deep Learning, it would be really great if I could assist in any ongoing project related to it. I describe myself as a genuinely motivated and enthusiastic person to carry out research work so as to enhance my technical skills and to contribute positively to the research going on in this field.



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EDUCATION

Bachelor's Degree, Computer Science
National Chengchi University

09/2018 – Preset *4.0*

Majors

- Operating System (A)
- Object-oriented Programming (A)

Bachelor's Degree, Computer Science and Information Engineering
National Chi Nan University

09/2016 – 07/2018 *3.46*

Majors

- Calculus (1)(2) (B)
- Introduction to Computer Science (A)
- Discrete Mathematics (B)
- Computer Programming (A)
- Logic Design and Laboratory Experiments (1)(2) (A)
- Data Structures and Algorithms (1)(2) (A)
- Digital Electronics (C)
- Computer Organization and Architecture (A)
- Probability (A)

WORK EXPERIENCE

Independent Study - Deep Reinforcement-Learning in Portfolio Management
National Chengchi University

03/2019 – Preset *Taipei City, Taiwan*

Achievements/Tasks

- Build a Deep Reinforcement Learning Framework for the Financial Portfolio Management Problem with Tensorflow.
- Coordinated effectively with a team of 9 members of skills in Computer Science and Finance.
- Search and Gather related research work.

Contact: *Yuh-Jong Hu – Professor at the Department of Computer Science of National Chengchi University*

TECHNICAL SKILLS

Tools
Vim, Emacs, MS Visual Studio, MS Visual Studio Code, Qt, Pycharm, Jupyter Notebook, RStudio, Git, Github

Programming Languages (Proficient)
C/C++, Python, R, JavaScript, Lisp, HTML, CSS

Programming Languages (Familiar)
Matlab, Shell Script, Haskell

Deep Learning
Keras, PyTorch, Tensorflow

Database
Firebase

Cloud-Based Technologies
Heroku, AWS

Others
Linux/Unix, Arduino, Web Crawler

SOFT SKILLS

Teamwork/collaboration | Flexibility | Creativity | Problem Solving | Self-management | Research

HARD SKILLS

Programming Logic	●●●●●○
Data Structures	●●●●●○
Web Design	●●●●●○
GUI Programming	●●●●●○
Algorithm	●●●○○○
Parallel Programming	●●●○○○

WORK EXPERIENCE

Independent Study - Implement Named Entity Recognition on Classical Chinese with Deep Learning

National Chengchi University

01/2019 – Preset *Taipei City, Taiwan*

Achievements/Tasks

- Build an open source system that do Named Entity Recognition on Classical Chinese with Deep Learning.
- Publish the research work in conference proceeding after finish.
- Develop an effective way to do evaluation on the model.
- Improve the accuracy and precision of the model.

Contact: *Chao-Lin Liu –*
Professor at the Department of Computer Science of National Chengchi University

School Project - Visualization of Classical Problem of Synchronization in Operating System

National Chengchi University

09/2018 – 11/2018 *Taipei City, Taiwan*

Achievements/Tasks

- Developed a GUI program that visualize the classical problem of synchronization in Operating System with Qt/C++.
- Simulated all possible scenarios that occur in Operating Systems.
- Exception handling in any possible situations.
- Took a deep research on various way of solving the classical problem of synchronization in operating system.
- Used animation and graphic to represent complex idea behind the synchronization in operating system.

Contact: *Yuh-Jong Hu –*
Professor at the Department of Computer Science of National Chengchi University

Research Assistant

National Quemoy University

09/2018 – Preset *Kinmen County, Taiwan*

Achievements/Tasks

- Study the technique of Image Information Hiding.
- Doing some basic task of Computer Vision with Python.
- Assisted in testing and Evaluating the effectiveness of the result.
- Research related paper work done by others.

Contact: *Chia-Chun Wu –*
Assistant Professor at the Department of Industrial Engineering and Management of National Quemoy University

CERTIFICATES

Collegiate Programming Examination (03/2018)
Top 1%

Toeic (12/2017)
850 / 990

PUBLICATIONS

Conference Proceedings

Evaluation of Secrecy Rate in Cooperative Communication System

Author(s)
Cheng-Ying Yang, Hsin-Ying Liang, Pin-Yen Huang

March 13, 2019
EPiC Series in Computing, Volume 58, 2019, Pages 144–154

Conference Proceedings

Greedy Algorithm Applied Secrecy Rate Analysis in the Cooperative Communication

Author(s)
Jong-Shin Chen, Shu-Chen Chang, Cheng-Ying Yang, Pin-Yen Huang

Feb 17, 2019
2019 2nd Asia Conference on Energy and Environment Engineering

conference Proceedings

Implement Named Entity Recognition on Classical Chinese with Deep Learning

Author(s)
Pin-Yen Huang, Chao-Lin Liu, Peter K. Bol

in progress

PERSONAL PROJECTS

Deep Reinforcement Learning for Flappy Bird Game (03/2019 – Preset)

- Integrate my knowledge of deep learning and reinforcement learning with the game I previously made (Flappy Bird).
- Automatically play the game in goal to maximize the score.

Web Game - Flappy Bird (01/2019 – 02/2019)

- Developed with JavaScript to imitate a popular game called Flappy Bird.
- Adjust game data(speed, obstacle ..) to make it more suitable for playing.
- Designing simple UI/UX interface make it more easy to play with.
- Using my knowledge on algorithm to implement object hit detection and simulated real world physical condition(eg: Gravity, Acceleration ...).

Personal Website (03/2018 – Preset)

- Developing a personal website with HTML5, CSS3, JavaScript, Firebase and deployed it at Github.
- Building a simple static web system that serve like a blog, which mean I can upload new articles to it.
- Designing the UI/UX interface completely by myself without using any template.
- Using Heroku (cloud platform as a service) with Firebase (a cloud database) to build a simple hit counter.

WORK EXPERIENCE

School Project - Visualization of Basic Data Structures & Algorithm
National Chi Nan University

07/2017 – 07/2018 *Nantou County, Taiwan*

Achievements/Tasks

- Developed a GUI program that visualize basic Data Structures (eg: Binary Tree, Linked List, Stack ...) and Algorithms (eg: Sort, Shorteset Path ...) with Qt/C++.
- Using lots of graph and animation to show the complex abstract idea behind the algorithm.
- Packed the source code and distributed executable program.

Contact: *Lieu-Hen Chen –*
Associate Professor at the Department of Computer Science and Information Engineering of National Chi Nan University

Research Assistant
Taipei Municipal University of Education

07/2017 – Preset *Taipei City, Taiwan*

Achievements/Tasks

- Write some basic code of Arduino for teaching material for children.
- Research related paper work done by others.
- Assisted in building a simple program that Simulate Network's behavior.
- Assisted in testing and Evaluating the effectiveness of algorithm.

Contact: *Cheng-Ying Yang –*
Professor at the Department of Computer Science of Taipei Municipal University of Education

VOLUNTEER EXPERIENCE

Service-Learning
Computer Center of National Chi Nan University

09/2016 – 07/2017 *Nantou County, Taiwan*

Tasks/Achievements

- Assisted in fixing network issues of school's server.
- Assisted in doing some regular examination on school's computer and servers.
- Wiped out the dust on server room to keep it clean and tidy.

Contact: *Wen-Long Young –*
Contract Technician at Computer Center of National Chi Nan University

PERSONAL PROJECTS

Automatic Game Play Program based on the Data that is Grab by Web Crawler (09/2017 – 10/2017)

- Build a simple web crawler with Python that automatically grab in time game data.
- Based on the information given by web crawler to make simple decision of the next action of the game.
- Using Firefox WebDriver to automatically log in to the game and do action with Python.

Arduino Based Robotic Arm (07/2015 – 09/2015)

- Using Servo Motor to precisely control the arm to the position.
- Write a code that can calculate the arm's current position.
- Implement a simple function that can move the arm vertically or horizontally.
- Grab the stuff from one side to the other side automatically.

Arduino Based Wifi Controlled Remote Boat (10/2014 – 12/2014)

- Integrate Wifi module with Arduino to make it wireless controllable by mobile phone or laptop.
- Making the boat with Styrofoam and a couple of waterproof motor.
- Using SSH protocol to transmit the signal and control the boat.

Arduino Based Obstacle Avoiding Car (09/2014 – 10/2014)

- Using Infrared & Ultrasound sensor to detect and automatically avoid any obstacles that block the way of the car.
- Using Servo Motor on wheel to make the car move to destination with preset data very precisely.

ORGANIZATIONS

NCCU Photo Club (03/2019 – Preset)
Member

NCCU Mathematics and Information Technology Club (03/2019 – Preset)
Memeber

Blockchain at NCCU.tw (09/2018 – 01/2019)
Member

NCNU CSIE Badminton Team (09/2016 – 09/2017)
Member

LANGUAGES

English
Professional Working Proficiency

Mandarin
Native or Bilingual Proficiency

INTERESTS

Deep Learning | Computer Vision | Algorithm | Research | Machine Learning