Pin-Yen (Jason) Huang

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Education

National Taiwan University Taipei, Taiwan
M.S. in Computer Science and Information Engineering, Advisor: Hsuan-Tien Lin *Sep. 2020 – Present*

National Chengchi University Taipei, Taiwan
B.S. in Computer Science (GPA: 4.15/4.3)(rank 1/50 final semester) *Sep. 2018 – June 2020*
Course: Operating System(A+), Object-oriented Programming(A+), PyTorch and Machine Learning(A+), Programming Languages(A+), Text Analysis with Deep Learning(A), Data Science(A+), Deep Reinforcement Learning and its Applications(A-), Security and Privacy in Machine Learning(A+)

National Chi Nan University Nantou, Taiwan
B.S. in Computer Science and Information Engineering (GPA: 82/100) *Sep. 2016 – June 2018*
Course: Computer Programming(A+), Computer Graphics(A), Linear Algebra(A-), Probability(A-), Data Structures and Algorithms(1)(2)(A+), Computer Organization and Architecture(A)

Honors / Awards

Presidential Awards
NCCU (Certificate of Award for outstanding academic performance) *spring semester, 2020*

Experience

Undergraduate Summer Research Internship July 2019 – Sep 2019
University of Illinois at Urbana-Champaign, Dept. of ECE, PI: Prof. Douglas L. Jones *Urbana, IL*
- Developed onset & offset detection algorithms for specific type of audio signals by python.
- Built a system to automate the process of trim and labeling audio data.

Research Scholarship from Ministry of Science and Technology July 2019 – Mar 2020
National Chengchi University, Dept. of CS, PI: Prof. Chao-Lin Liu *Taipei, Taiwan*
- Developed a named-entity recognition (NER) system for Literary Chinese.
- Improve the F1 score by 9% by applying machine learning technique(LSTM-CRF).
- Built an optical character recognition (OCR) system for Literary Chinese with machine learning.
- Applied self-organizing map & clustering aggregation to increase the speed of labeling data by human by 12x.

Undergraduate Research Assistant Sep. 2017 – Present
University of Taipei, Dept. of CS, PI: Cheng-Ying Yang *Taipei, Taiwan*
- Improved the performance of encryption algorithm in IoT devices.
- Used greedy algorithm to get secured encryption even with poor computing resources.
- Analysised and visualized the performance and published final results to journal.

Presentation / Workshop

Deep Learning with Keras Sep 4, 2019
University of Illinois at Urbana-Champaign (UIUC), Prof. Stephen Boppart's laboratory *Urbana, IL*

Course Projects

YouBike Realtime Status System | *Javascript, D3JS* May 2020 – June 2020
- Developed a website that show realtime rent & return status of YouBike with Google Map.
- Implemented a system to find optimal place for users to rent & return bicycle.

Air Quality Forecast | *R, Shiny* May 2019 – June 2019
- Created a website that forecast future air quality with based on past data.
- Used Gradient Boosting Algorithms & Decision Tree.

Automated Portfolio Management System | *Python, PyTorch* April 2019 – June 2019
- Developed a system to automate investment management.
- Used deep reinforcement learning technique(Actor-Critic) to get 59% of cases earning money.

Technical Skills

Languages: (proficient): C/C++, Python, JavaScript. (familiar): HTML/CSS, R, matlab.
Libraries: PyTorch, Tensorflow, Keras