HUNG-YI WU

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EDUCATION

National Yang Ming Chiao Tung University (NYCU, formerly NCTU) Hsinchu, Taiwan
B.S. in Computer Science Sep 2018 – Jun 2022

- Overall GPA: 4.01/4.3, Last 60 Credits: 4.20/4.3, Major GPA: 4.11/4.3
- Honors:
  - 2020 Taipei Wenchang Scholarship for Outstanding Students
  - 2019 Hsinchu Du Cheng Huang Scholarships for Outstanding Students
- Relevant Coursework:
  - Data Structures and Object-oriented Programming, Introduction to Algorithms, Introduction to Machine Learning, Introduction to Artificial Intelligence, Natural Language Processing, Introduction to Operating Systems, Network Programming, Introduction to Database Systems, Computer System Administration

WORK/RESEARCH EXPERIENCE

ASUS Intelligent Cloud Services (AICS) Taipei, Taiwan
Software Engineer, Backend Aug 2022 – Present

- Will participate in Backend Development of the product

InQuartik *(SaaS Startup in Patent Analysis)* Taipei, Taiwan
Software Engineer Intern Jan 2022 – Jul 2022

- Developed REST APIs and tables schemas for new features in SEP OmniLytics website with Java, S3 and PostgreSQL
- Built Cucumber Tests for 350+ use cases in Patentcloud SEP with Java to ensure the data in SEP show correctly
- Built a new frontend feature that allows users to browse results side by side in Patent Search website with Vue.js
- Maintained documentations for the code base and the schemas to help developers work more efficiently

Artificial Intelligence & Multimedia Lab, **NYCU** Hsinchu, Taiwan
Undergraduate Research Assistant, Advisor: Wen-Huang Cheng Sep 2021 – Jun 2022

- Applied the feature maps obtained from Human Pose Estimation to the Human Object Interaction prediction task
- Increased 6% accuracy of Referring Expression Comprehension on RefCOCO as compared to the SOTA method
- Applied Simple Copy-Paste to research to perform data augmentation and enhance the diversity of data
- Visualized the attentions of the predicted bounding boxes and expressions of our experimental results with Python

Synopsys, Inc. Hsinchu, Taiwan
Technical Engineering Intern (R&D Software Engineer Intern) Jul 2021 – Aug 2021

- Decreased 20% of the total turnaround time of Critical Dimension Variation Check in PLRC with C++
- Completed the regression tests and helped to identify the internal precision issue between two kinds of CDV Check

PUBLICATIONS

[1] J. Wang, **H.-Y. Wu**, J.-C. Chen, H.-H. Shuai, and W.-H. Cheng. Residual Graph Attention Network and Expression-Respect Data Augmentation Aided Visual Grounding. *IEEE International Conference on Image Processing (ICIP). 2022.*

PROJECTS

Emotion Classification on Empathetic Dialogues using BERT-Based Models May 2022 – Jun 2022

- Used data grouping, role feature, and FastText to manipulate the input data and applied them on RoBERTa
- Successfully achieved 63% accuracy on Emotion Classification on Empathetic Dialogues

Fake News Detection using a BERT-Based Deep Learning Approach May 2021 – Jun 2021

- Utilized LSTM, Bidirectional LSTM, CNN-BiLSTM, and BERT-based model to perform fake news detection

- Successfully achieved 97% to 99% accuracy on University of Victoria ISOT Fake News Dataset

Camera-Based Table Tennis Stroke Analysis Sep 2020 – Jun 2021

- Built an SVM model to classify table tennis players' strokes (forehand, backhand, etc.) with skeleton detection and successfully achieved 92% overall accuracy on test videos
- Designed a model to trace balls and tables with a 90% average IoU score on test images by Semantic Segmentation utilizing Google AI's EfficientNet

Stock Price Prediction Apr 2021

- Implemented a Long Short-Term Memory model to predict stock prices for the next 10 days based on data for the past 1000 days; data was fetched by Yahoo! Finance API
- Successfully verified and visualized the trends of actual and predicted stock prices for the past 10 years

BBS and Chat Room System Sep 2020 – Dec 2020

- Constructed a Bulletin Board System with Python and SQLite to allow 10+ users to create boards, posts, comments
- Created a chat room service within the BBS to allow users to privately or publicly chat with other users

SKILLS

Programming Languages:

- Python, C++, Java, JavaScript, SQL, Shell Script, Go, MATLAB, C, CSS, LaTex

Tools and Others:

- Git, Scrum, Jira, MySQL, PostgreSQL, Solr, MongoDB, Spring, Node.js, Express, Vue.js, AWS

Test Score:

- TOEFL 109/120 (R: 30, L: 29, S: 23, W: 27)
- GRE 322/340 (Q: 170, V: 152, AW: 3.5)

EXTRACURRICULAR ACTIVITIES

JPMorgan Chase & Co. Taipei, Taiwan

Virtual Experience Program Participant Oct 2021 – Nov 2021

- Interfaced with a stock price data feed and set up system for analysis of the data
- Implemented the Perspective open source code in preparation for data visualization
- Utilized Perspective to create the chart for the trader's dashboard