Wei-Hua Hsu

✉ wh0225a@american.edu 📞 4847448853 📍 4354 Warren St NW, Washington, DC 20016 in Linkedin.com/in/waferhsu/

PROFESSIONAL SKILLS

- Machine Learning: Scikit-learn, Keras, t-SNE, Umap; Weka and Programming R.
- Data Science: Interpretation, Visualization.
- Programming: Python, Programming R, MySQL.
- Natural Language Processing: BoW Analysis, Feature Engineering, Word Embedding, and Text Mining methods.
- Data Mining, Deep Learning, Neural Networks, MLP.
- Database Management: SQL queries, relational DB.

EDUCATION

Master of Science in Data Science
American University, Washington, DC
Enrolled: Jan. 2019 ~ Dec. 2020   GPA: 4.0/4.0
- Quant Support & Stats Tutor (2020~Now)
- AU Catholic Table Co-host (2020~Now)
- Spring Cultural Festival Volunteer (Apr. 2019)

Bachelor of B.A. in Communications Management
Shih Hsin University, Taipei, Taiwan
Graduated: July 2016   GPA: 3.9/4.0
- Leadership in International Creativity and Innovation Competition (Aug. 2016)

RELEVENT PROJECTS

Applied Natural Language Processing on the Textual Data in AU Optronics Corp. (Python)
- Applied NLP techniques with Stopwords, Word Cloud, Bag of Words matrix, Sentiment Analysis, Word Frequency & Weights, Bert Transformation, Clustering, etc.

Applied Natural Language Processing on Reddit Comments (Python)
- Conducted Sentiment Analysis over tweets.
- Used Machine Learning algorithms (Classification and Regression).

U.S. High School Track & Field and Cross-Country Data Analysis (Programming R)
- Web scraping, cross-analyzed statewide social economics and climate data.
- Displayed the state-wise result of visualization on the webpage shinyapp.com ([Link to my shinyapp](#)).

How to Succeed in E-Sports: A Data Analysis on PlayerUnknown's Battlegrounds (Programming R)
- Explored correlations between variables including killing and damage rate, weapon or vehicle using, survival time, distance of moving; visualized the data and quantitative analyzed the data.

EXPERIENCE

NATURAL LANGUAGE PROCESSING INTERN
AU Optronics Corporation, Taipei, Taiwan / June 2020 – August 2020
Our optimal goal is to achieve 98% accuracy anomaly detection in the manufacturing defect rate of producing TFT-LCDs (display arrays).
- Used Natural Language Processing to conduct feature engineering.
- Utilized word embedding methods (TF-IDF, bag-of-words) for keywords analysis.

TV PRODUCTION ASSISTANT & VISUAL CONTENTS PROFESSIONALS
Sanlih E-Television Co. Ltd, Taipei, Taiwan / October 2018 – January 2019
The best cable television network in Taiwan which produces news, TV dramas, indoor and outdoor TV programs.
- Real-time broadcasted live streaming data, sports data, song lyrics, and graphics in the production truck locally in the fast-paced work environment.

VISUAL CONTENTS PRODUCER & SOFTWARE TRAINER
Taipei, Taiwan / September 2017 – December 2018
- Gathered data from official sports and electronic sports competitions, cleaned and organized data through Microsoft Excel. Collected 2D/3D aesthetic graphics contents from artwork team.
- Applied and produced data and visual contents on CG graphic systems, streaming out on TV channels or Live stream platforms.