YUXIN WU

yuxinwu5@illinois.edu
+1 (217) 979 - 5143
707 S. 4TH Street ⋄ Champaign, IL 61820

EDUCATION

University of Illinois at Urbana-Champaign *Fall 2020 - Present*
B.S. in Computer Science & Economics *Expected graduation: May 2024*
B.S. in Mathematics
Cumulative GPA: 3.7/4.0
GRE: 166 + 170 + 4.5

INTERNSHIP & RESEARCH EXPERIENCE

University of Notre Dame, iSURE program *Summer 2022*
Research Assistant, Supervisor: Paul Brenner, Caleb Reinking *South Bend, IN*

- Developed a strategy game about water sharing and management for education and research.
- Discussed potential features and mechanics of the game, designed parameter functions by applying principal component analysis, advanced regression techniques, and game theory.
- Implemented front-end files auto-generated by Adobe XD into the prototype game constructed using boardgame.io game engine, react and socket.io libraries.
- Created a drop-down chat room of different communication availability for players, added css3 effects to front-end pages, fixed screen resize problem, path issue, forced termination bug, etc.
- Systematically tested the parameters to balance between playability and reality.
- Explored the feasibility of AI implementation, flexibility under constraints, intensity adjustment.

OTHER PROJECTS

Kaggle: House Prices - Advanced Regression Techniques *Spring 2022*
Top 5% - 240/5,037 teams *Champaign, IL*

- Performed data visualization with Matplotlib and Seaborn libraries in Python, made reasonable interpretation, and presented findings to the whole research group.
- Cleaned raw datasets for around 3,000 houses with 79 explanatory variables and performed outlier detection algorithms to improve the accuracy of model prediction.
- Applied different machine learning techniques to train models, including GBDT(Gradient Boosting Decision Tree), Lightgbm, XGBoost, RFR(Random Forest Regression), performed hyperparameter tuning and stacking model fusion in search of optimal house price pridicting results.

Shortest Flight Path Visualization *Fall 2021*
Data Structure & Algorithms *Champaign, IL*

- Constructed traversal by building DFS and BFS.
- Determined shortest path through managing the vertices as airports and edges as airlines based on A* Search Algorithm.
- Presented all airports on white canvas by output of JPG-graphs and 3D animations.
- Visualized the shortest path on a 3D model between two airports based on the OpenFlights dataset.

Twitter Comments Sentiment Analysis *Fall 2020*
Project Leader Developer *Champaign, IL*

- Created a website by applicating HTML5+CSS and django.

· Displayed the time series graphs over pandas and matplotlib for the purpose of data preprocessing.
· Used scikit-learn and tensorflow to implement sentiment analysis and prediction in order to have a better understanding of emotional representations.

VOLUNTEER ACTIVITIES

Godot Engine Documentation Translation *October 2021 - Present*
Translating original English document from Weblate to Chinese & Revising *Virtual*

· Translated the original document with a total of 300,000 words.
· Corrected non-standard computer terminologies from former community volunteers.

HONORS AND AWARDS

Dean's List, University of Illinois at Urbana-Champaign, Fall 2021.
3rd Prize in the Hackson Competition 2020 of Shanghai Yi-tech Co.Ltd 12/20
Meritorious Winner (7%) in the Mathematical Contest In Modeling (MCM), Spring 2022

TECHNICAL STRENGTHS

Programming Languages	Proficient in C++, Golang, Python, R
Other skills	Haskell, Java, HTML, CSS, Excel
Development	React, MySQL, Tensorflow
Version Control	GitHub, Gitee, CODING
Operating Systems	MacOS, Win10, Linux

OTHERS

Core Courses:

· Data Structures, Discrete Structures, Database Systems, Progrmg Languages & Compilers, Architecture in programming (in progress),
Abstract Linear Algebra, Applied Complex Variables, Game Theory.
· Verified certificate for PH525.4x: High-Dimensional Data Analysis, by HarvardX.
· Verified certificate for CS435: Cloud Networking, by UIUC and offered through Coursera.

Languages:

· Chinese(native), English(fluent), Japanese(intermediate)