Zhuoyue Wang

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EDUCATION

University of Illinois at Urbana-Champaign
Bachelor of Science in Computer Science *May 2020*
Bachelor of Science in Statistics GPA: 3.97/4.00
Minor in Computational Science and Engineering
Dean's List, James Scholar
Relevant Coursework:
Artificial Intelligence, Text Information Systems, Statistical Learning, Computational Linguistics, Natural Language Processing, Data Structures, System Programming, Numerical Methods, Linear Algebra, Statistics and Probability

RELEVANT EXPERIENCE

CS 196 Course Assistant *August 2017 – Present*

- Design weekly homework assignment and autograder in Jupyter for 70-100 students
- Provide office hours to help students solve coding problem and using Piazza to answer conceptual questions

CS 125 Course Assistant *January 2017 – Present*

- Facilitate problem solving on worksheet in group discussion containing 30-35 students
- Instruct students to debug machine problems

PROJECT EXPERIENCE

Pacman Maze Solver
- Used Python to implement BFS, DFS, Greedy and A* search algorithms to find solution paths to "food pellets" puzzles
- Implemented graph and the Minimum Spanning Tree of the graph as the heuristic to improve the searching efficiency and solve the maze with multiple goals

Digit Classification model
- Implemented Naive Bayesian classifier to classify visual patterns on handwritten digits by training and testing the parsed data
- Apply Perceptron and Nearest Neighbor to utilize the digit classification and get the better accuracy

Breakthrough Game
- Used PyGame to build an GUI interface for two-player game Breakthrough and apply minimax and alpha-beta search algorithm to create AI player
- Implemented different Offensive and Defensive Heuristic function to improve AI's strategy

Pong Game
- Implemented the Q-learning algorithm to create a single-player version of Pong
- Trained the agent based on the defined Markov Decision Process to make it be able to rebound the ball

Yupik Language Converter
- Implemented a machine translation converter from English to Yupik language by tokenizing into Yupik graphemes and applying devoicing rules on words
- Built a web tool to help check whether the word violate the Yupik spelling rule based on Yupik syllables

MyTime
- Build an web interface for users to login and sign up in MyTime system
- Implemented an HTTP server to store and process users' request to make time schedule visualization

LEADERSHIP & ACTIVITIES

Chinese Engineering Student Association **Champaign, IL**
Vice President *March 2017 – Present*

- Communicating with departments of events, publicity and tech developments
- Guiding the development and maintenance of official website in Wordpress
- Collecting and analyzing the data for CESA APP in python

Association for Computing Machinery - SIGAI **Champaign, IL**
Member *September 2017 – Present*

- Attending weekly coding workshops to learn AI-related knowledge
- Working with other group members to make machine learning projects in Python

SKILLS & ACKNOWLEDGEMENT

Proficient in Python, C++, Java Intermediate in R, mySQL, Clojure and HTML
Data Science Certificate, Leadership Certificate