

Shuo Wang

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EDUCATION

University of Maryland — College Park, MD

Bachelor of Science, Computer Science, GPA: 3.6

Academic Honor: Spring 2020, Fall 2020, Fall 2021, Fall 2022

Expected May 2023

SKILLS

Programming Language: Java, Python, C, SQL, JavaScript, HTML, CSS

Operating Systems: macOS, Windows, Linux

PROGRAMMING EXPERIENCE

[CMSC422 Intro to Machine Learning]

Softmax Regression and Neural Networks

Sep 2022-Oct 2022

College Park, MD

- Implemented **Softmax Regression** to classify the MNIST digit dataset in **Python**.
- Implement squared loss cost functions and calculated gradients for **Neural Networks**
- Created codes for **dimension reduction** with PCA to find the trade-off in training time and test accuracy.

[CMSC422 Intro to Machine Learning]

Classification/Wine Classification and Linear Model

Sep 2022-Oct 2022

College Park, MD

- Implemented and compared accuracy using **Decision Tree** and **KNN** on binary data set using **Python**.
- Predicted the type of wine from the descriptions with 98% accuracy using **Decision Tree** in **Python**.
- Solved overfitting by implementing a tree-based reduction function.
- Build **Linear Model** with loss function and Gradient Descent.

[CMSC320 Intro to Data Science]

Moneyball Analysis

Feb 2022-Mar 2022

College Park, MD

- Performed **data wrangling** and exploratory data analysis and data mining skills to baseball data in **Python**.
- Evaluated payroll distribution and correlation between payroll and winning percentage.
- Performed data transformation via standard function and expected function with efficiency analysis.

PERSONAL PROJECT

Book Recommendation System in ML

Nov 2022-Dec 2022

College Park, MD

- Created a recommendation system based on readers' information and ratings using **scikit-learn** in Python.
- Applied data cleaning, wrangling, and transforming in **Numpy and Pandas**.

PERSONAL PROJECT

Infectious Diseases Database

Mar 2021-Apr 2021

College Park, MD

- Created and implemented database designs and models about infectious diseases using **PostgreSQL**.
- Performed various SQL queries to visualize, analyze data and create relevant reports.

EXPERIENCE

Teaching Assistant

University of Maryland

Sep 2022-Jan 2023

College Park, MD

- Handled individual sessions for 10+ students to fix **C** codes per day in a TA team with 2 professors.
- Assisted professors with document coordination and assignments grading for over 850 students.
- Fixed all registration and account problems and maintained all students' accounts by performing **Python** codes.

CS Tutor

University of Maryland

Sep 2022-Jan 2023

College Park, MD

- Held 5+ individual meetings to help debugging and fixing **Java and C** code.
- Supervised 2-3 small groups of mostly 4 people to help master or reinforce concepts or materials.