**Zixiao Wang**

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**SUMMARY**

Software engineering and data science graduate student. Solid knowledge of using machine learning and statistical methods to fit market data and sensor data. Enjoy discovering patterns behind data and sharing the results of data analysis. Ready to work with others to help team do data cleaning, data organizing, data analysis and business decision making.

**SKILLS**

**Programming Skills:** Python, Java, SQL, R, HTML, CSS, JavaScript

**Analysis Tools:** Pandas, NumPy, Matplotlib, Scikit-learn, Hypothesis test, Machine Learning, RL

**Database:** MySQL, SQL

**Software Tools:** Jupyter notebook, VSCode, Git, Markdown, Microsoft Excel

**EDUCATION**

**Master of Science in Information System, Northeastern University, Boston, GPA: 3.56.**  Expected Spring 2022

**Relevant Courses:** Application Engineering and Development, Data Science Engineering Methods and Tools, Data Management and Database Design, Advances Data Sci/Architecture.

**Bachelor of science in software engineering Wuhan University of Technology, Wuhan, Hubei** Jun 2019

**Honors:** College Scholarship (2016), College Miyoshi Students (2016,2018)

**ACADEMIC PROJECTS**

**Northeastern University, Boston, MA**

“NEU Indoors Pathfinding” Application - D*ata Management and Database Design Project.*  Expected Apr 2020

* Create a schedule management system with indoors pathfinding function
* Apply the pathfinding algorithm like Breadth First Search, Dijkstra’s Algorithm, A\* Algorithm to indoor coordinate data and optimize the performance
* Design database structure and implement database in MySQL

Kaggle - NYC Property Sales Prediction [Github](https://github.com/Brickea/NEUCourses/blob/master/Advance%20in%20Data%20Science%20and%20Architecture%20-%20INFO%207390%20/Assignments/Assignment%201/Assignment%201%20-%20ZixiaoWang%20-%20001058840.ipynb) Feb 2020

* Used correlation to select proper features in order to make the prediction
* Made dummy variables for every categorized features
* Used Simple Linear Regression, Lasso Regression, Ridge Regression, and RandomForest Regressor to make sales prediction and compared their performance

NEU Skunkworks EM Lyon AI Workshop - *Teaching Assistant* [Github](https://github.com/nikbearbrown/NEU_Skunkworks_EM_Lyon) Nov 2019 – Dec 2019

* Built the teaching notebook and helped the professor to teach Students from EM Lyon to use the Jupyter notebook with models
* Predicted Ad Lift with ANN and ensemble of Machine Learning Algorithms
* Used hypothesis test to determine which parameter had significant effect on Ad Lift
* Taught more than 40 students to do feature selection, data pre-processing, ANN prediction model and ensemble ML model by using Python library Scikit-learn and H2O.

Beijing PM2.5 Prediction –*Data Science Methods and Tools Project.* [Github](https://github.com/Brickea/NEUCourses/blob/master/Data%20Science%20Engineering%20Methods%20and%20Tools%20%E2%80%93%20INFO%206105/Lecture4-Tools%20libraries/Assignment%204/assignment%204.md) Sep 2019

* Used maximum likelihood estimation to determine parameters of PM2.5 data distribution.
* Built a random forest regression to predict future values of Beijing PM2.5 based on 7 sensors’ data.
* Selected as an excellent course project among 80 students.

**SOCIAL EXPERIENCE**

**Leadership, Microfinger Support Education Team, Wuhan, Hubei Prov**  2017

* Participated in 2016 Summer Guangxi Prov support education. Held 2017 “XiaoZhuang” Charity Tour for Wuhan University of Technology. Organized 2017 “One Cent” charity fundraising.

**Minister of Arts, College Student Union, Wuhan University of Technology** 2017

* Participated in the “Golden Fall” dance competition and won university second price.