

# DIWEI “DAVID” ZHU

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## SUMMARY

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- Current NYU MS student, focused on Business data analysis, with GPA 3.87/4.0, majored in Industrial Engineering
- 3 years of experience on **Python**, including Sklearn, NumPy, Pandas, seaborn, bs4, TensorFlow, **Keras** and **NLTK**
- 1 year experience on **R**, working on 3+ course projects, answering questions and grading in R as Teaching assistant
- Solid background on visualization and case study. 4+ years exp. on making and presenting slides with visualization
- Fast learner, problem solver, coding enthusiasts, 10+ course project experience using **R, Python, SQL, Tableau**

## PROFESSIONAL EXPERIENCE

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**Data Analyst Intern**, Element 451, New York, NY

March 2021 – May 2021

Worked on an **NLP** model using **TensorFlow** predicting effectiveness of marketing email with given title

- Pipelined the process including data engineering, auto tuning, training, prediction and validation
- Used **NLTK** (stemming) to extract subject’s meanings and **Spacy** library to perform **Name Entity Recognition**
- Built hybrid neural network with **LSTM** and feature input with **Keras** and autotuned parameters via **Keras-tuner**
- Achieved 80% accuracy on predicting the email open rate with given email’s subject, date and recipient numbers

**Business Analyst Intern**, Capgemini Consulting, Guangzhou, China

Feb 2019 – May 2019

Worked with **web development** team to build an app providing easy access to the ERP system on smartphone

- Generated testing environment datasets with **SQL**, using Navicat software to manipulate **MySQL** database
- Reported and followed up on 90% of bug cases with the software, assisted developers in reproducing issues
- Assisted leaders in presenting plans and progress to clients by creating **PowerPoint** slides on weekly basis
- Supported employee training by producing instructional video series and detailed, role-based manuals in **Excel**

## EDUCATION

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**New York University**, Tandon School of Engineering, Brooklyn, New York

Sep 2019 - May 2021

MS in Industrial Engineering (focused on Business Data Analyst) GPA:3.87/4.00

*Relevant Coursework: Machine Learning, Programming for BI & Analytics, Business Analytics, Project Management*

**Northeastern University**, Shenyang, China

Sep 2015 - Jul 2019

Bachelor of Business Administration, Industrial Engineering, GPA:3.50

## PROJECT EXPERIENCE

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**Sponsor position analysis (Python, matplotlib, API, multi-threads)**

Apr 2021

- Determined the ideal sponsorship locations for J.P. Morgan by analyzing sponsorship spaces on courts of US open
- Used **API** to recognize logo data on court and accelerated the image retrieval process using **multithreading**
- Providing comparison charts on potential spot acquisition by visualizing API results using **spider plot**, time series

**YouTube trending video analysis (R, Git, ETL, Text analysis, SQL)**

Dec 2020

- Used **R** to provide 8 suggestions, 3 channel templates based on industry insights with genres, content and tags
- Performed **text analysis** based on Youtube dataset, computed word recurrence and visualized via **wordcloud**
- Developed “engagement score” model to evaluate video’s engagement with the audience and plotted in **ggplots2**

**Home credit default risk project (R, Caret, ggplot2, SQL, Random Forest)**

Oct 2020

- Predicted the clients’ probability of loan repayment with loan history and card usage in **Excel**
- Balanced the datasets in **R** by oversampling and performed grid search for machine learning models using **caret**
- Collaborated with team of 5, visualized the **ETL** process using **ggplot2** and Presented models in class
- Compared models’ performance and chose **gradient boosting tree** because of its high accuracy of 73%

## TECHNICAL SKILLS

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- **Programming:** Python (Matplotlib, NumPy, Sklearn), R (ggplot2, caret), Java(basic), C++, JavaScript
- **Certificate:** Tableau Desktop Specialist
- **Other Tools:** Git/GitHub, MySQL, MongoDB, Jupyter Notebook, AWS, R studio, ReactJS, Excel, SQL