

# Zidong Xu

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## EDUCATION

### GEORGETOWN UNIVERSITY

Washington, DC

#### Master of Data Science and Analytics (STEM field)

Expected Graduation: May. 2023

- GPA: 4.0 / 4.0

### CENTRAL CHINA NORMAL UNIVERSITY

Wuhan, China

#### Bachelor of Information management

Sept. 2016 – Jun. 2020

- GPA: 3.61/ 4.0 (top 5%)

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## EXPERIENCE

### GOUSEN SECURITIES CO., LTD

Beijing, China

#### Department of Fixed Income, Analyst Intern

Mar. 2021 – Aug. 2021

- Develop an understanding of economic and political forces affecting the issuance of bonds and the bond market through internal and external resources.
- Prepare three due diligence documents for bond issues (projects between 1 billion and 2 billion).
- Develops data and analytical processing skills, proficient knowledge of available computer programs & improves data processing systems to enhance departmental efficiency.
- Developed the company's customer service system, assisting clients in preparing and publishing annual and audit reports.

### Trip.com Group Limited

Shenzhen, China

#### Air Ticket R&D Department, Assistant data analyst

July. 2019 – Aug 2019

- Gather data from varying sources (Social media, News, Official websites), organize and analyze information necessary to prepare client presentations, offering statements, and marketing materials (SQL, Excel, PPT).
- Write two analysis reports using (English and Mandarin) and show them to the WeChat public account.

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## PROJECTS

### Big Data and Cloud Computing: Analyze Reddit data with Azure

- Use two subreddits datasets, submissions (1770430 rows) and comments(38152167 rows).
- Exploratory data analysis (EDA), use WordCloud to show basic info of string variables.
- Data visualization(matplotlib/ plotly) show numeric variables info, such as user's activity change over time
- Spark NLP and NLTK (Regular expressions) do text data cleaning and create dummy variables.
- Build Machine Learning Pipelines (ML Spark), such as Random Forests/Logistic Regression, to select essential features and evaluate models' performance (Accuracy, Confusion Matrix, and AUC).

### Natural Language Processing (NLP): DBpedia14 classification with BERT

- Do exploratory data analysis (EDA) and Data preprocessing (solve uneven distribution labels of the dataset).
- Create batched inputs using Huggingface's DistilBERT tokenizer.
- Finetune Huggingface's DistilBERT model, Train the DistilBert model on the training set. Compute and print out the trained model's loss, accuracy, and f1-score on the train and test sets (Use Google Colab+, GPU).
- Visualize embeddings using sklearn TSNE.

### Neural Nets and Deep Learning: Object detection and time series analysis

- Download the Video from Youtube and use OpenCV. Read Video and convert it into an ordered set of images.
- Use YOLOv5 to detect vehicles from the current images (frames).
- Create new variables according to the information from the model result and perform a time series analysis.

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## DISTINCTIONS

**Languages:** English, Mandarin

**Skills:** Python, R, MySQL, [Tableau](#), VS Code, AWS, Azure, Hadoop, Spark, NLP, Time series analysis, HTML

**Packages:** PyTorch, TensorFlow, Scikit-Learn, Matplotlib, plotly, ggplot2, OpenCV, NLTK, Gensim, Streamlit

**Certification:** The securities qualification certificate (China)