

# Fuyu Zou

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Currently looking for full-time data scientist opportunities.

## EDUCATION

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<b>Brown University</b>	Providence, RI
M.S. in Biostatistics    GPA: 3.9/4.0	2017 - 2019
<b>Shanghai University of Finance and Economics</b>	Shanghai, China
B.A. in Management    GPA: 3.5/4.0	2013 - 2017

**Relevant courses:** Machine Learning, Deep Learning, Introduction to Algorithms

## SKILLS

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- **Programming:** Python, SQL, R, Julia
- **Platforms:** Tensorflow, Keras, Scikit-learn, Tableau, Plotly, Google Cloud Platform
- **Specializations:** Machine Learning, Deep Learning, NLP, A/B Test, Visualization

## EXPERIENCE

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<b>BrainCo Inc.</b>	Somerville, MA
<i>Machine Learning Engineer Intern</i>	<i>June 2018 ~ August 2018</i>

- Developed real-time classifier to categorize EEG data into different sleep stages or wakefulness status
- Reviewed current sleep-stage classification methods and used findings to analyze large scale EEG data
- Implemented Neural Nets onto selected features and achieved state-of-art 93.1% high test accuracy
- Designed experiments to optimize model on new subjects, compiled the results into a presentation

<b>Center of Gerontology and Healthcare Research</b>	Providence, RI
<i>Research Assistant</i>	<i>January 2018~March 2018</i>

- Developed hierarchical generalized linear model to predict re-admission rates for patients with CVD
- Checked the validity of the dataset and examined potential risk factors related to the outcomes in SAS
- Utilized cross validation to optimized the model, and simulated interval estimates using bootstrap
- Summarized the final model and compiled research results into a presentation to other researchers

<b>PayPal Holdings, Inc.</b>	Shanghai, China
<i>Operation Specialist Intern</i>	<i>July 2016~December 2016</i>

- Collected, collated and carried out complex data analysis of in support of client managers' requests
- Improved analysis efficiency by 60% by establishing models that classify clients on their characteristic
- Minimized the time spent on monthly reports by synchronizing data in Excel and PowerPoint via VB
- Reduced the client churn rate by 10% through analyzing the best advertise timing to retain clients

## SELECTED PROJECTS

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### Prediction of usefulness of Yelp Reviews (NLP)

- Parsed restaurants information from Yelp Dataset and implemented relational database using SQL
- Preprocessed text and utilized GloVe and n-gram methods to convert text into word representations
- Built ensemble supervised learning models (bidirectional-LSTM, CNN) to predict the useful votes
- Achieved highest test AUC of 94.5% in classification and visualized key words in a useful review

### Kaggle competition: New York City Taxi Trip Duration

- Implemented Elastic net, generalized additive model (GAN), and LGBM to predict taxi trip duration
- Visualized the data in Plotly to do exploratory data analysis and potential spurious trips identification
- Utilized K-Means clustering algorithm to analyze the frequency of pick-up and drop-off spots on map
- Used a LGBM based model that achieved 0.425 Root mean square logarithmic error on test dataset