

## FURONG (NATE) HUANG

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### EDUCATION

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#### NEW YORK UNIVERSITY

New York, NY

#### The Courant Institute of Mathematical Sciences

#### MS in Mathematics in Finance (expected – January 2021)

- **Coursework:** Stochastic calculus, Monte Carlo methods, portfolio and risk management, simulation and back-testing strategies, generalized linear models, hidden Markov models, interest rate derivatives and one-factor models
- **Recitation Leader:** Mathematics of Finance

#### UNIVERSITY OF CALIFORNIA BERKELEY

Berkeley, CA

#### BA in Applied Mathematics & BA in Statistics (2016-2018)

- **Coursework:** Calculus, numerical analysis, partial differential equations, linear algebra, probability and statistics, time series, data science and machine learning, financial economics
- **Awards:** Berkeley Undergraduate Scholarship

### EXPERIENCE

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#### SUNY BROOKLYN EDUCATIONAL OPPORTUNITY CENTER

Brooklyn, NY

#### Tutor/Library Assistant (April 2019 – June 2019)

- Organized workshops and selected topics in precalculus and probability to prepare students for college-level math
- Provided one-on-one tutor sessions with students on algebra, calculus, probability, and statistics
- Helped over 20 students evaluate their performance and customized individual study strategy
- Went over test-prep materials and developed a workbook for the CUNY math placement test

#### CHINESE ACTION NETWORK

New York, NY

#### Community Outreach Leader (July 2015 – December 2015)

- Surveyed Chinese Americans about their political awareness in Chinese communities
- Developed strategy to advocate Chinese-American residents to participate in voting and helped over 500 people register to vote
- Trained three-member team on efficient communication and designed an outreach procedure

### PROJECTS

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#### UNIVERSITY OF CALIFORNIA BERKELEY

Berkeley, CA

#### *NYC Taxi Rides Duration Prediction (Python)*

- Leveraged SQL and Python to select and clean related data from a 15 million taxi rides dataset
- Performed Exploratory Data Analysis to gain insights and feature engineered a regression model with Scikit-Learn pipelines
- Validated model using unselected data with MAE under 4 minutes on average 12 minutes trips

#### *Trump's Tweets Analysis (Python)*

- Structured and cleaned over 10000 raw tweets data from twitter's API into data frame
- Transformed the text of the tweets into tidy format and performed VADER sentimental analysis
- Identified the most influential words in the tweets by aggregating their average retweet count

#### *Handwritten Digit Recognition (R)*

- Structured 5000 handwritten digits' pixel information for visualization and computation purpose
- Applied K-Nearest Neighbor algorithm and K-Fold Cross-Validation to build a predictive model
- Predicted 5000 unknown handwritten digits with 95% accuracy

### COMPUTER SKILLS/OTHER

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**Programming Languages:** Python (packages: Numpy, Pandas, Scikit-Learn), R, Java, SQL

**Languages:** Cantonese (native), Mandarin (native), English (fluent)

**Certification:** CFA Level I