# TU NI

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## SUMMARY

- Engineering student with analytical skills and great interest in positions related to Data Science
- Technical Skills: Optimization, Machine Learning, Deep Learning, Mathematical Modeling, Database
- Programming Skills: Python, SQL, MATLAB, R, Spark, Maple, C, Microsoft Office

## EDUCATION BACKGROUND

**College of Engineering, University of California, Berkeley, USA** Expected Jun.2017

*Master of Engineering in Industrial Engineering &Operations Research, GPA (3.81/4)*

**School of Mathematical Sciences, Zhejiang University, China** Jun.2016

*Bachelor of Science in Mathematics &Applied Mathematics, GPA (3.86/4)*

## ACADEMIC & PROFESSIONAL EXPERIENCE

**Machine Learning for Patent Similarity Analysis** Aug.2016-present

*Capstone project, University of California, Berkeley*

- Constructed a model to find relevant prior art for 5 million patents, reducing the probability of litigation.
- Applied natural language processing algorithm to patent documents and train the model with Python.
- Working with Google and USPTO to improve the evaluation and prediction in patent litigation.

**Converting Forest Fire Management Waste to On Demand Renewable Energy** Sept.2016-present

*Environment &Renewable Energy Lab, Berkeley Institute of Data Science*

- Working on the optimization of supply chain from forest fire waste to power plants.
- Used clustering techniques to improve the biomass transportation with PostgreSQL & QGIS.
- Developed the algorithm to the whole California in a huge data scale of roads and biomass (4 TB).

**Music Recommendation with Convolutional Neural Network** Sept.2016-present

*Research project, Machine Learning at Berkeley*

- Improving content-based music recommendation with convolutional neural network by Keras.
- Computed the latent factor for both users and songs (1 million) by weighted matrix factorization as labels.
- Preprocessed the music audio clips into Mel-spectrograms and used PCA to extract the features.

**New Supervision System of Waste Sorting in Community** Sept.2014-Nov.2015

*Research group leader, Zhejiang University, China*

- Handled the problem of waste sorting in “smart city” perspective with data science.
- Utilized statistical learning methods to improve the management of more than 2500 communities.
- Part of the new supervision system was implemented by local government to enhance efficiency.

## LEADERSHIP EXPERIENCE & ACTIVITIES

**The Coach of School Soccer Team** Sept.2012-May.2016

- Organized and led a cohesive team of 23 to attend more than 30 intramural soccer matches.

**The Delegate of World Future Energy Summit 2017** Jan.2017

- Attended the conference of using data intelligence in smart cities for sustainable development.