# Kunlin Hsieh

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**LinkedIn Profile**

I am a data scientist currently looking for opportunities. In 2019, I graduated from Thinkful data science program, a comprehensive bootcamp and mentorship centered around statistical analysis and machine learning algorithm theory and implementation. I also has worked as a civil engineer for 10 years. I believe the combination of my engineering experience and bootcamp experience will help me succeed in data science field.

## PROJECTS

### Predict House Price (Jupyter Notebook)

The goal of this project is to predict the house price in the data set obtained from Kaggle competition. Three features elimination methods in combination with six machine learning algorithms have been used to perform the supervised learning analysis. The predicted results can be used by real estate companies to provide more accurate house price estimate to their customers.

### Classify Book Authors (Jupyter Notebook)

Ten articles with similar topics from 10 different authors are obtained from Gutenberg Project. Bags of Word technique was used to extract features from the data set. Unsupervised learning and supervised learning approaches are used to classify the book author. The accurate classification can be utilized by online book reader provider for their customers to search for their favorite books.

### Forecast Energy Consumption (Jupyter Notebook)

The purpose of this project is to forecast energy consumption from a data set obtained from Kaggle. Traditional statistical and supervised learning approaches and Facebook Prophet have been used and compared. The accurate predicted results can be beneficial for power companies by either expand or downsize their power plants and eventually reduce their operating cost.

## SKILLS

- Machine Learning
- A/B Testing
- Supervised Learning
- Unsupervised learning
- Time Series Analysis
- Scikit-Learn
- Matplotlib
- Seaborn
- Spacy
- NLTK
- Git/Github
- Python
- Numpy
- Pandas
- SQL

## EDUCATION

### Thinkful — *Data Science Program*                    Aug 2018 - Jan 2019

- Completed intensive data science program with a focus on Python, mathematical tool-sets, statistical analysis, and big data techniques including machine learning.
- Learned industry best practices and standards by collaborating several hours every week with a senior data scientist.

### Virginia Tech — *Ms in Engineering Mechanics*        Aug 2004 - May 2007

## WORK EXPERIENCE

## Civil Engineer                                    Sept 2007 - Present

- Project management and client coordination.
- Collaborate with different groups of professionals to complete land development projects.
- Coordinate with different level of government agencies to obtain permits.
- Design, project schedules, budgets; preparation of design plans, project specifications and cost estimates, inspection of construction projects; and coordination with a multidisciplinary staff of engineers.
- Prepare specifications or construction cost estimates; Conduct site visits to document conditions; Prepares civil design for sites and projects; Prepare civil detailing for construction drawings; Assist in the preparation of written reports.
- Provide input and technical guidance to lower-level Engineers working on the same project.
- Perform hydrology study and prepare hydrology report.
- Prepare plans and specifications for land development projects.
- Manage, organize, and oversee civil designs and details to produce a complete set of drawings.