

# Jostine Fei Ho

## Technical Skills

### Programming Languages

Python: *pandas, numpy, scipy, sklearn, matplotlib*  
Web-scraping, REST API: *beautifulsoup, flask*  
Matlab, C++

### Database & Engineering

SQL, NoSQL: *MongoDB*  
Distributed Systems: *Hadoop MapReduce, Spark*  
Cloud Computing: *AWS EC2, GPU computing*

## Application Skills

### Machine Learning

Supervised learning:  
*Regressions, SVM, PCA*  
*Boosting, Random forest*  
Unsupervised learning:  
*Clustering, Recommenders*  
Deep Learning:  
*Convolutional neural networks*

### Statistical Modeling

A/B testing  
Cross validation  
Bootstrap sampling  
Parametric inference (MLE)  
Bayesian optimization  
Cost-benefit analysis

## Contact Info

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## Summary

**Machine learning scientist** passionate about changing the world with deep learning and predictive modeling. Analytical thinking and attention to detail honed through engineering and research background. Energetic self-starter who can work independently to solve real-world problems. Ability to prioritize tasks and support team in fast-paced agile environment.

## Relevant Experience

### Galvanize Inc., Austin, Texas

#### Data Science Fellow (May - August 2016)

Gained 600+ hrs of hands-on experience in latest data science tools:

- **Predicting Topic of new articles:** launched Spark clusters on AWS, implemented text processing using RDDs, clustered large wikipedia corpus with MLlib in PySpark, and built topic classification model
- **Movie Recommender System:** built item-item collaborative filtering with MovieLens users' ratings, discovered latent features, validated predictions with holdout set, and personalized recommendations
- **Fraud Detection:** performed feature engineering on event ticketing data, trained classifier to determine fraud transactions, and deployed model by building REST API for real-time stream of event transactions
- **Facial Emotion Recognition:** trained computer vision model using deep convolutional neural network, built image processing pipeline (OpenCV), deployed REST API with database (MongoDB), and partnered with web dev to create interactive web app: [mememoji.me](http://mememoji.me). Project documentation: [github.com/JostineHo/mememoji](https://github.com/JostineHo/mememoji)

### The University of Texas at Austin, Austin, Texas

#### Research Scientist/Engineer Assistant (2015 - 2016)

- Engineered pH-triggered polymer sealant to remediate well leakage
- Developed polymer injection/placement model for field operation
- Showcased technology at major oil & gas conferences (ATCE, CCUS)
- Reduced remediation cost and resulted in joint industry application

#### Graduate Research Assistant (2012 - 2015)

- Simulated subsurface fluid injection for oil recovery maximization
- Managed and trained undergraduate engineers in performing high-temperature/pressure experiments to validate model simulation

### Statoil Svallex Arctic Expedition, Svalbard, Norway

#### Expedition Researcher (August 2013)

- Collaborated in multidisciplinary team led by Statoil R&D division
- Analyzed regional well-logs to map formation and estimate reserve
- Designed novel drilling strategies applicable to Arctic environment
- Delivered risks and benefit analysis for Svalbard field development

### Harvard University, Cambridge, Massachusetts

#### Fellow Research Assistant (2011 - 2012)

- Reviewed patient data for socioeconomic disparities cancer mortality
- Assessed evacuation strategies following Fukushima nuclear disaster

## Education



The University of Texas at Austin  
M.S. in Petroleum & Geosystems Engineering

Dec 2015



National Cheng Kung University, Taiwan  
B.S. in Resources Engineering

Jun 2011