

# Mooyoung Lee

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## Objective

Data Scientist

## Languages

Python, R, SAS, Matlab,  
SQL, Java, C

## Machine Learning

Regression,  
Dimensionality reduction,  
Decision Tree,  
Random Forest,  
Logistic Regression  
Clustering,  
Neural Network, Keras,  
Gradient Boosting,  
Bayesian Model,  
Ensemble Learning,  
Recommendation Systems,  
Natural Language Processing  
Image Classification

## Cloud Computing

EMR/Hadoop/BigQuery,  
Data Studio,  
SQL/MongoDB server,  
Web server,  
Virtual Private Cloud

## Education

**Southern Methodist  
University,**  
MS in Data Science,  
August 2018 GPA 3.97

**Marquette University**  
BS in Mechanical  
Engineering,  
May 2010

## License

Professional Engineer  
(#44052, WI DSPS)

## Professional Experience

Highly motivated data scientist candidate offering expertise in data collection, data exploration, and predictive modeling. Experienced in engineering environments demanding strong creative and technical skills with high responsibility. Quick learner of new skills and proven abilities in data analysis, developing reporting systems, and programming for real-time data.

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## Joy Global Inc. (now Komatsu)

### Application Engineer I, II, III (June 2010 - July 2016)

- *Vehicle Control Program Developer:* Six control programs are patented and one control program is waiting to be patented. Explored 600 features to maximize vehicle performance and minimize damage to structure. This adaptive control packages were sold to many companies.
- *Report Program Developer:* Developed an automated reporting system for machine performance, damage, and operator's style. Generated different versions for marketing, engineering, and analytics group. Learned multiple ways to send data from machine to data server, used data query using SQL, mastered data browsing, filtering, synthesizing results, and visualization.
- *New Vehicle Concept Developer:* Generated optimum vehicle configurations with weight, motion, force, and 2D/3D layouts for new products (e.g. P&H [4800XPC](#), [2650CX](#)).

### Co-op Engineer (Jan. 2008 - Aug. 2009)

- Generated vehicle configurations to find the best configurations for customer requirements.

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## Research Experience at Southern Methodist University (2017-2018)

- Modeled deep neural network models for Dallas refugee soccer teams to identify people using their frontal face by transfer learning technique using VGG16 and InceptionV3 architectures.
- Extracted features from Yelp reviews by using NLP sentiment analysis (Stanford CoreNLP) and Deceptive & Extreme text classification. These features are used to prove that Yelp's Not-Recommended-Review algorithms are biased.
- Developed Java programs to visualize data into 2D/3D animation with user interactions.  
*Source data:* <<https://github.com/MooyoungLee/reference>>

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## References

Bill Hren, Sr. Principal Engineer, Komatsu; Team lead, 414-670-7328  
Joe Colwell, Chief Engineer, Komatsu; Direct manager, 414-670-7462