# LIZHONGYANG (LIZZY) ZHOU

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## **EXPERIENCE**

Dec.2018 - present

## Building Information Modeling Engineer | BIM Center | Royal BAM Group

Information modeling for project BORG Groningen, housing reinforcement

- Performing correlation and predictive modeling on Seismic data to determine the governing features for structural failure using machine learning algorithms.
- Applying Python to automate data exchange process, including data entries and reconciliations.
- Advising senior managers and engineers on the potential risks of a project.

Digitizing the realization process of De Zamlhaven, Rotterdam

- Developed BIM integrated model to incorporate multidisciplinary information for knowledge sharing and interface management.
- Preparing digital drawings and building model for onsite construction.

Jan.2018 - Oct.2018

#### Graduate Intern | Master Thesis | TUDelft & Witteveen+Bos

A Machine Learning Approach for Road Pavement Cost Prediction

- Gathered and preprocessed raw cost data into workable data set. Fit the data to multiple machine learning cost prediction models using Matlab.
- Explored significance levels between associated cost drivers and target cost.
- Evaluated the potential of applying machine learning approach in construction industry in terms of prediction accuracy and knowledge representation.
- Advised on cost database management optimization also expert participation.

## **EDUCATION**

Sep. 2016 - Oct. 2018	Delit University of Technology   The Netherlands
	MSc in Construction Management & Engineering
Sep. 2012 - Jul. 2016	Chongqing University   China
	BSc in Engineering Management & Real Estate
Jul. 2015 - Sep. 2015	National Taiwan University   Taiwan
	Summer program in Computer-Aided Engineering

### WORKSHOP

#### Risk and Reliability Analysis to a Water Navigation Lock

- Performed Failure Mode, Effects & Criticality Analysis (FMECA) to prioritize key lock components which lead to system failure.
- Conducted Fault Tree Analysis (FTA) to quantify the root-cause events and failure probabilities.
- Presented the analysis result and recommendation to Rijkswaterstaat.

#### **Dutch Real Estate Market Valuation**

• Estimated the profitability of commercial properties by conducting income capitalization approach and market approach.

### **ONLINE COURSE**

# Applied Plotting, Charting & Data Representation in Python,

by University of Michigan on Coursera

**Applied Machine Learning in Python**, by University of Michigan on Coursera **Managing Big Data with MySQL**, by Duke University on Coursera **Application of AI, InsurTech, and Real Estate Technology**,

by University of Pennsylvania on Coursera

#### SKILLS

Python, MySQL, MEX, Git, MS Office, Photoshop
Data Analysis, Risk Assessment, Lean & Agile Methodology, Project Management
Chinese (native), English (professional proficiency), Dutch (B1)
FRM program - Passed FRM Exam Part I (NOV. 2019)