MOHAMMADREZA (MATT) MOEINI

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PROFILE

Graduate Ph.D. student experienced in applied machine learning (ML) and optimization algorithms. Currently working on developing ML models and ML-based optimization algorithms for water quality management. Looking for an internship opportunity in summer 2022.

EDUCATION

- **Ph.D. in Civil Engineering - Environmental and Water Resources**
  University of Illinois at Chicago | Chicago, IL | Expected Dec. 2023 | GPA: 4:00

- **M.S. Civil Engineering - Environmental**
  South Dakota School of Mines & Technology | Rapid City, SD | Dec. 2020 | GPA: 4.00

- **B.S. in Civil Engineering**
  Iran University of Science & Technology | Tehran, Iran | Sep. 2013

EXPERIENCE

- **Graduate Assistant**
  Jan. 2021 - Present | Working on developing ML models and ML-based optimization algorithms for water quality management

- **Graduate Assistant**
  Jan. 2019 - Dec. 2020 | Worked on developing ML models for estimating stormwater quality

RELEVANT PROJECTS AND PUBLICATIONS

- **Supervised Machine Learning for Estimation of Total Suspended Solids in Urban Watersheds**
  | *Published in Water MDPI Journal* | 2021
- **Machine Learning Techniques for Estimation of Suspended Sediment Loading in Urban Watersheds**
  | *AGU Conference Poster Presentation* | 2020
- **Optimization of Supervised Ensemble Machine Learning Models for Estimating Stormwater Quality**
  | *AGU Conference Oral Presentation* | 2021
- **Stacking Ensemble Supervised Machine Learning Approach for Enhancing Prediction of Total Suspended Solids Concentration in Urban Watersheds** | *Accepted Paper in the Journal of Environmental Engineering (ASCE)* | 2022
- **Developing ANN, GNN, GRU, LSTM, and CNN for estimating water quality**
- **A public list of projects is available on GitHub** | github.com/mmoeini08

SKILLS

- **Programming and Data Software:** Python, MATLAB, VBA, Orange, IBM SPSS
- **Framework:** Scikit-Learn, TensorFlow, PyTorch, Keras, NLTK

CERTIFICATION AND RELATED COURSEWORK

- **Academic coursework:** Data Mining, Machine Learning, Numerical Methods, Statistics
- **Certifications:** A wide range of related certifications, including ML, Classification, regression, ANN, DNN, etc | Coursera, Udemy, LinkedIn | The list is available on linkedin.com/in/mattmoeini

AWARDS AND HONORS

- **Assistantship Fund for Ph.D. Degree** | University of Illinois at Chicago, IL | 2021-Present
- **Assistantship Fund for Master's Degree** | South Dakota School of Mines & Technology, Rapid City, SD | 2019 -2020
- **Ivanhoe Excellence Award** | South Dakota School of Mines & Technology, Rapid City, SD | Aug. 2020