Yinghui Zhao

PhD Candidate,
Computing Civil Engineering

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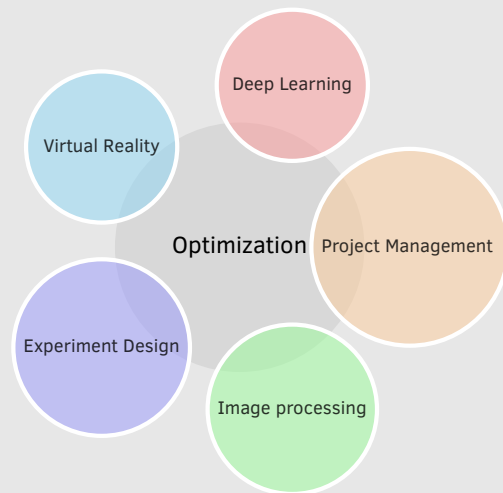- @ yinghui.zhao@uwaterloo.ca

Education

PhD in Civil Engineering
Specialized in Construction Management
University of Waterloo | 2017 - 2021

Master in Civil Engineering
Specialized in Geotechnical Engineering
Hohai University | 2015 - 2017

Master in Civil Engineering
Polytech'Lille | 2013 - 2015

Bachelor in Civil Engineering
Hohai University | 2010 - 2012

Skills

Optimization

Deep Learning
Project Management
Image processing
Experiment Design
Virtual Reality

Languages

English

Chinese

French

Japanese

Work Experience

Teaching Assistant University of Waterloo   2019 Sep - Dec
Prepared and marked assignments, hold office hours to answer students' questions for course *CIVE 224 Probability and Statistics*

Research Assistant China Energy Engineering Group   2016 Jan - Dec
Conducted research on bearing capacity of pile foundation using finite element method model & Assisted in project planning

Construction Manager VINCI Construction France   2015 Apr - Aug
Managed problems encountered on-site
Dealt with quality control, safety checks and inspections
Coordinated between different steak-holders to keep the project within the timescale

Structural detailer Linyi Architecture Design Institute China   2014 July - Aug
Assisted in preparing construction drawings with views, details, notes and dimensions for construction projects on AutoCAD

Research and Projects

Robotics and Automation for Optimal Characterization for Nuclear Power Plant Decommissioning   2017 Sep - Present
Develop automated workflow and solutions for NPP decommissioning
Provide technical support to the industrial partner

Optimal Packing of Irregular 3D Objects for Transportation and Disposal
                                                            2017 Sep - Present
Conduct research on 3D irregular packing problem to reduce transportation and disposal costs under the supervision of Dr. Carl Haas

Bearing capacity of piles based on enhanced and weakened effects of lateral friction   2016
Studied the bearing capacity of pile foundation in multi-layered soil using numerical simulation under the supervision of Dr. Yuedong WU

Bearing capacity of the large-diameter Mono-piles for offshore wind turbines under vertical loads   2016 Jan - Feb
Assisted in project initiation, coordinated with steak-holders and prepared contracts

Publications and Conferences

A 3D Irregular Packing Algorithm Using Point Cloud Data
Yinghui Zhao and Carl T. Haas, F. ASCE
Computing in Civil Engineering 2019: Data, Sensing, and Analytics . 2019

Virtual Reality Platform for 3D Irregular Packing Problem
Yinghui Zhao and Carl T. Haas. To be submitted by April 2020

Metaheuristic Optimization for Non-Parametric 3D Object Packing
Yinghui Zhao and Carl T. Haas. To be submitted by April 2020

Robotics and Automation for Nuclear Power Plant Decommisioning
Yinghui Zhao and N. Charron, S. Phillips et al.,
University Network of Excellence in Nuclear Engineering R&D Workshop. 2019

Awards and Scholarships

2017-2021   Graduate Research Studentship $30.000 per year
2017-2021   International Doctoral Student Award $11,280 per year
2017   Provost Doctoral Entrance Award (PDEA) for Women $5000

Certifications

Fundamentals of University Teaching
Centre for Teaching Excellence, University of Waterloo

Deep Learning Specialization
Online course on Cousera.org