# Yue Zhong (Simon), Ph.D.

About 10 years' experience in structural testing, structural analysis, and structural signal processing
485 Graduate Visa, 190 WA State Nominated (PR) Visa (nominated and lodged visa application)
Full C class driving license, Engineers Australia Accredited Civil Engineer

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## Core Skills

Structural analysis| Structural testing| Structural signal processing| Structural health monitoring (SHM)| Structural damage identification| Numerical modelling| Finite element analysis| AI-driven SHM methodologies|

## Software and Programming

MATLAB, ANSYS, Abaqus, Python, Keras, Pytorch

## Education

Doctor of Philosophy, Civil Engineering — 2018 – 2024
Curtin University, Perth

Master of Engineering, Structural Engineering — 2014 – 2018
Dalian University of Technology, Dalian, China (A "985" and "211" Project University)

Bachelor of Engineering, Civil Engineering — 2010 – 2014
Dalian University of Technology, Dalian, China (A "985" and "211" Project University)

## Career History

Research Assistant at Curtin University — 09/2024 – now

## Research & Engineering Experience

- Build a **SHM data transmission system under a local area network** based on WiFi mesh. — 10/2024 – 03/2025
- Conducted **on-site data collection and testing at Stirling Bridge**, focusing on real-world deployment of loT-based SHM systems. — 09/2022 – 04/2023
- Developed a Bayesian Neural Network-based method for **real-time concrete crack monitoring**, improving predictive maintenance strategies. — 07/2022 – 02/2023
- Developed a Bayesian convolutional neural network-based **structural damage identification** approach, providing probabilistic predictions for SHM applications. — 06/2020 – 09/2022
- Developed a phase space matrix and CNN-based **structural damage identification** method, enabling accurate detection of structural damage. — 10/2018 – 09/2020
- Developed an improved fish swarm algorithm to accelerate **model updating**. — 12/2014 – 10/2017
- Conducted **finite element modelling** and model updating of the Dongying Yellow River Highway Bridge (Zhengzhou, China) — 10/2015 – 06/2017
- Conducted research on improving stay cable damage identification by utilizing a temporary diagnostic bar to amplify local frequencies**, obtained a Chinese invention patent and software copyright** for the supporting algorithm. — 09/2014 – 05/2015
- Conducted numerical and **experimental analysis** at the mesoscopic scale for lightweight aggregate concrete. — 12/2012 – 06/2013
- Conducted experimental analysis on the thermal insulation performance of passive houses. — 10/2012 – 10/2013
- Simulated roundabout traffic flow and proposed optimization strategies. — 11/2011 – 06/2012
- Published 5 SCI JCR-Q1 journal papers and have 3 under review currently. — 06/2014 – now

## Honors & Scholarships

**National Scholarship in China** (highest scholarship in China). — 10/2016
**Outstanding Graduate Student of Dalian University of Technology** — 09/2016
Scholarship Sponsored by China Road & Bridge Corporation
**Outstanding Undergraduate Student of Dalian University of Technology** — 10/2011