

Stanford



Zahra Mazlaghani

Ph.D. Student in Civil and Environmental Engineering, admitted Winter 2023

Bio

EDUCATION AND CERTIFICATIONS

- MS, University of Tehran , Civil Engineering (2018)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I work on advanced numerical methods that harness the massive parallelism of GPUs, i.e., real-time computer chips originally developed for graphics rendering, to overcome computational bottlenecks in structural simulations, specifically in the real-time hybrid simulation (RTHS) of tall buildings in order to enable more realistic and faster simulations. I use graphics processors, for the first time, to accelerate RTHS to enable higher-fidelity "on-the-fly" simulation of civil structures.

Professional

WORK EXPERIENCE

- Civil Engineer - University of Tehran (March 10, 2018 - June 30, 2018)
- Civil Engineer - University of Tehran (March 15, 2019 - May 15, 2019)

Publications

PUBLICATIONS

- **Piecewise incremental dynamic analysis (PIDA) based on the vector of intensity measures correlated with the structural responses** *SOIL DYNAMICS AND EARTHQUAKE ENGINEERING*
Khanmohammadi, M., Mazlaghani, Z.
2021; 150