



## Zahra Mazlaghani

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

### Bio

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#### EDUCATION AND CERTIFICATIONS

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

### Research & Scholarship

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#### 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

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#### 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

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#### 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