

# HONGLIANG LI

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## EDUCATION

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Penn State University	Expected Jun 2024
Ph.D. in Industrial Engineering Tianjin University	Jan 2020
M.S. in Civil Engineering Tianjin University	Jun 2017
B.S. in Civil Engineering	

## RESEARCH EXPERIENCE

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CAIS Lab, Penn State	May 2022 - Present
<i>Research &amp; Teaching Assistant</i>	<i>State college, PA</i>

- Teaching assistant for IE306 and IE312 courses
- Develop system level digital twin framework for energy efficient manufacturing system
- Develop physics-informed machine learning models for safe robotics manipulation

SJ-NTU Corp Lab, Nanyang Technological University	Jan 2019 - Aug 2021
<i>Research Assistant</i>	<i>Singapore</i>

- Mechanism and design of cementitious composites for high performance printing using waste materials
- Develop novel cementitious composites with phase change materials for waste cold energy harvesting in oil & gas industry

Department of Civil Engineering, Tianjin University	Sept 2017 - Dec 2018
<i>Research assistant</i>	<i>Tianjin, China</i>

- Improve mechanical properties of crumb rubber concrete using carbon nanotubes

## PUBLICATIONS

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Li, H., Herschel, P., Kovalenko, I., (2023). A System-Level Energy-Efficient Digital Twin Framework for Runtime Control of Batch Manufacturing Processes. In 2023 IEEE 19th International Conference on Automation Science and Engineering (CASE). [Accepted](#).

Lu, B., Li, H., Li, M., Wong, T. N., & Qian, S. (2023). Mechanism and design of fluid catalytic cracking ash-blended cementitious composites for high performance printing. *Additive Manufacturing*, 61, 103286.

Liu, S., Lu, B., Li, H., Pan, Z., Jiang, J., & Qian, S. (2022). A comparative study on environmental performance of 3D printing and conventional casting of concrete products with industrial wastes. *Chemosphere*, 298, 134310.

Huang, Y., Li, H., & Qian, S. (2018). Self-sensing properties of engineered cementitious composites. *Construction and Building Materials*, 174, 253-262.

## AWARDS AND HONORS

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Dean's Fellowship	Dec 2019
Dean's list, Tianjin University, Faculty of Engineering	Jun 2017
Undergraduate Oversea Final Year Project Scholarship	Dec 2016