

HONGLIANG LI

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EDUCATION

Ph.D. in Industrial Engineering, Pennsylvania State University	Expected Jun 2025
M.S. in Civil Engineering, Tianjin University	Jan 2020
B.E. in Civil Engineering, Tianjin University	Jun 2017

RESEARCH EXPERIENCE

CAIS Lab, Pennsylvania State University <i>Research & Teaching Assistant</i>	May 2022 - Present <i>PA, USA</i>
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- 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 <i>Research Assistant</i>	Jan 2019 - Aug 2021 <i>Singapore</i>
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- 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 <i>Research assistant</i>	Sept 2017 - Dec 2018 <i>Tianjin, China</i>
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- Improve mechanical properties of crumb rubber concrete using carbon nanotubes

PUBLICATIONS

[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

Graduate student first-class scholarship	Dec 2019
Jing Gong-Liu Xiliang scholarship	Dec 2018
Undergraduate Oversea Final Year Project Scholarship	Dec 2016