

# CURRICULUM VITAE

For

**Ziyu Jin**

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Department of Construction Management  
Colorado State University  
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USA

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## ACADEMIC BACKGROUND

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- Ph.D., 2021      School of Civil and Construction Engineering, Oregon State University,  
Corvallis, OR  
Major: Civil Engineering (Construction)  
Minor: Statistics  
*Dissertation Title: Application of Technologies for Temporary Structures  
during the Design and Construction Phases*  
Advisor: John A. Gambatese
- M.S., 2012      College of Engineering and Computer Science, Syracuse University,  
Syracuse, NY  
Engineering Management
- B.S., 2010      Suzhou University of Science and Technology, Suzhou, China  
Construction Management

## WORK EXPERIENCE

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- Assistant Professor      Department of Construction Management  
2023 – Present      Colorado State University, Fort Collins, CO
- Lecturer II  
2021 – 2023      Gerald May Department of Civil, Construction & Environmental  
Engineering  
University of New Mexico, Albuquerque, NM
- Research Assistant      School of Civil and Construction Engineering  
2015 – 2021      Oregon State University, Corvallis, OR
- 1) July 2020 – June 2021: Identification and Assessment of Musculoskeletal Disorders (MSDs) Risk for Concrete Formwork Systems (Sponsored by the Center for Construction Research and Training, \$29,985)
  - 2) October 2018 – January 2021: Speed Variation and Safety in Work Zones (Sponsored by the Oregon Department of Transportation, \$193,000)

- 3) June 2016 – October 2017: Construction Work Zone Safety: Use of a Mobile Laser Scanner to Assess Temporary Signage in Work Zones (Sponsored by the Oregon Department of Transportation, \$118,694)

Teaching Assistant Oregon State University, Corvallis, OR  
2015 – 2021

- 1) Winter 2021: CE 420/520 Engineering Planning (Co-instructor)
- 2) Spring 2018: CEM 441 Heavy Civil Construction Management
- 3) Winter 2018: CE 427/527 Temporary Construction Structures
- 4) Fall 2017: CCE 101 Civil and Construction Engineering Orientation (Recitation Instructor)
- 5) Spring 2016: CEM 443/543 Project Management for Construction
- 6) Winter 2016: CE 420/520 Engineering Planning
- 7) Fall 2015: CEM 442 Building Construction Management

Project Coordinator YBL NY INC, Queens, NY  
2014

Assistant Project Basic Group Consulting Corp., Brooklyn, NY  
Manager  
2012 – 2013

Math Tutor Say Yes to Education, Syracuse, NY  
2011 – 2012

### **PROFESSIONAL AND SOCIETY MEMBERSHIPS**

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American Society of Civil Engineers (ASCE), Member, 2015 – present.

American Concrete Institute (ACI), Member, 2016 – present.

American Society of Safety Engineers (ASSE), Member, 2019 – present.

### **HONORS AND AWARDS**

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ExCEED Teaching Fellow, United States Military Academy, ASCE, 2022

Recipient of the Outstanding Doctoral Student Award, School of Civil and Construction Engineering, Oregon State University, 2021

Recipient of the Spring 2021 Dissertation Completion Award, Graduate School, Oregon State University, 2021

Student Chapman Professional Development Award to attend 2019 Canadian Society for Civil Engineering Annual Conference at Laval (Great Montreal), Canada, June 12 – 15, 2019, \$1,000

Student Chapman Professional Development Award to attend the Joint CIB W099 and TG59 Conference at Salvador, Brazil, August 1 – 3, 2018, \$1,000

## GENERAL RESEARCH INTERESTS

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- Construction worker safety and health, Prevention through Design (PtD)
- Construction innovation (virtual design and construction, laser scanning, etc.)
- Construction automation
- Workforce development
- Temporary construction structures
- Work zone safety

## PEER-REVIEWED JOURNAL ARTICLES

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1. **Jin, Z.**, Gambatese, J.A., Karakhan, A. and Nnaji, C. (2023). “Analysis of Prevention through Design Studies in Construction: A Subject Review.” *Journal of Safety Research*, Elsevier, 84, 138 - 154
2. **Jin, Z.** and Gambatese, J.A. (2023). “BIM-Based Timber Formwork Design and Modeling.” *Practice Periodical on Structural Design and Construction*, ASCE, 28(1), 04022057
3. Nnaji, C., Okpala, I., Gambatese, J.A. and **Jin, Z.** (2023). “Controlling Safety and Health Challenges Intrinsic in Exoskeleton Use in Construction.” *Safety Science*, Elsevier, 157, 105943
4. Nnaji, C., **Jin, Z.** and Karakhan, A. (2022). “Safety and Health Management Response to COVID-19 in the Construction Industry: A Perspective of Fieldworkers.” *Process Safety and Environmental Protection*, Elsevier, 159, 477–488.
5. Karakhan, A., Nnaji, C. and **Jin, Z.** (2021). “How Technology Can Improve Occupational Health and Safety Management in Construction.” *Professional Safety*, ASSP, 66(12), pp. 18 – 26.
6. **Jin, Z.** and Gambatese, J.A. (2020). “Exploring the Potential of Technological Innovations for Temporary Structures: A Survey Study.” *Journal of Construction Engineering and Management*, ASCE, 146(6), 04020049.
7. Liu, D., **Jin, Z.**, and Gambatese, J.A. (2019). “Scenarios for Integrating IPS–IMU System with BIM Technology in Construction Safety Control.” *Practice Periodical on Structural Design and Construction*, ASCE, 25(1), 05019007.
8. **Jin, Z.**, Gambatese, J.A., Liu, D. and Dharmapalan, V. (2019), "Using 4D BIM to Assess Construction Risks During the Design Phase," *Engineering, Construction and Architectural Management*, Emerald Publishing, Vol. 26 No. 11, pp. 2637-2654.

## PEER-REVIEWED CONFERENCE PROCEEDINGS

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1. **Jin, Z.** and Gambatese, J.A. (2023). “Development of a Cost Effective Proximity Warning System for Fall Protection.” ASCE International Conference on Computing in Civil Engineering, ASCE, Corvallis, OR, June 25 – 28, 2023

2. **Jin, Z.** and Gambatese, J.A. (2022). “Musculoskeletal Disorders in Concrete Formwork Construction.” 2022 Construction Research Congress, ASCE, Arlington, VA, March 9 – 12, 2022
3. Ibrahim, A., Nnaji, C., and **Jin, Z.** (2022). “Biomechanical Analysis in Construction Engineering and Management Research: A Review.” 2022 Construction Research Congress, ASCE, Arlington, VA, March 9 – 12, 2022
4. **Jin, Z.** and Gambatese, J.A. (2020). “A Fuzzy Multi-criteria Decision Approach to Technology Selection for Concrete Formwork Monitoring.” 2020 Construction Research Congress, ASCE, Tempe, AZ, March 8 – 10, 2020.
5. Liu, D., **Jin, Z.**, and Gambatese, J.A. (2020). “Construction Workers’ Long-Term Health Impacts Among Different Trades.” 2020 Construction Research Congress, ASCE, Tempe, AZ, March 8 – 10, 2020.
6. **Jin, Z.** and Gambatese, J.A. (2019). “BIM for Temporary Structures: Development of A Revit API Plug-in for Concrete Formwork.” 2019 Canadian Society for Civil Engineering Annual Conference, CSCE, Laval (Great Montreal), Canada, June 12 – 15, 2019.
7. **Jin, Z.**, Gambatese, J. A., and Olsen, M. J. (2019). “Investigation of Temporary Sign Placement Quality in Construction Work Zones.” Transportation Research Board (TRB) 98<sup>th</sup> Annual Meeting, Washington, D.C., January 13 – 17, 2019.
8. **Jin, Z.**, Gambatese, J.A., Liu, D., and Dharmapalan, V. (2018). “Risk Assessment in 4D Building Information Modeling for Multistory Buildings.” Proceedings of the Joint CIB W099 and TG59 Conference, Salvador, Brazil, August 1– 3, 2018.
9. Liu, D, Gambatese, J.A., and **Jin, Z.** (2018). “Construction Safety Training Methods and Effectiveness for Non-native Workers.” Proceedings of the Joint CIB W099 and TG59 Conference, Salvador, Brazil, August 1– 3, 2018.
10. **Jin, Z.**, and Gambatese, J.A. (2018). “Temporary Construction Signage: Drivers Preferences for Work Zone Safety.” 2018 Construction Research Congress, ASCE, New Orleans, April 3 – 5, 2018.

## TECHNICAL REPORTS

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1. Gambatese, J.A., and Jin, Z. (2021). “Identification and Assessment of Musculoskeletal Disorders (MSDs) Risk for Concrete Formwork Systems.” Final Report, Small Study No.20-2-PS, Center for Construction Research and Training (CPWR), August 2021, <http://www.cpwr.com/wp-content/uploads/SS2021-Gambatese-identify-assess-MSDs.pdf>
2. Gambatese, J.A., and Jin, Z. (2021). “Speed Variation and Safety in Work Zones.” Final Report, SPR 822, Oregon Department of Transportation (ODOT) and Federal Highway Administration (FHWA), July 2021, <https://www.oregon.gov/odot/Programs/ResearchDocuments/SPR822SpeedVariationinWorkZones.pdf>

## PROFESSIONAL PRESENTATIONS

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1. “Musculoskeletal Disorders in Concrete Formwork Construction.” *2022 Construction Research Congress*, ASCE, Arlington, VA, March 9 – 12, 2022
2. “BIM for Temporary Structures: Development of A Revit API Plug-in for Concrete Formwork.” *2019 Canadian Society for Civil Engineering Annual Conference*, CSCE, Laval (Great Montreal), Canada, June 12 –15, 2019.
3. “Investigation of Temporary Sign Placement Quality in Construction Work Zones.” *Transportation Research Board (TRB) 98<sup>th</sup> Annual Meeting*, Washington, D.C., January 13 –17, 2019.
4. “Risk Assessment in 4D Building Information Modeling for Multistory Buildings.” *Proceedings of the Joint CIB W099 and TG59 Conference*, Salvador, Brazil, August 1 – 3, 2018.
5. “Construction Safety Training Methods and Effectiveness for Non-native Workers.” *Proceedings of the Joint CIB W099 and TG59 Conference*, Salvador, Brazil, August 1– 3, 2018.
6. “Temporary Construction Signage: Drivers Preferences for Work Zone Safety.” *2018 Construction Research Congress*, ASCE, New Orleans, April 3 – 5, 2018.
7. “Use Mobile Laser Scanner to Support Work Zone Reviews of Temporary Signage.” *Northwest Transportation Conference*, Corvallis, Oregon, March 13 – 15, 2018.

## TEACHING

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At the University of New Mexico

Number	Course Title	Semester/Year	Credits	Enrollment
CE 160L	Civil Engineering Design	Fall 2021	3	44
CE 202	Engineering Statics	Fall 2021	3	36
CE 452	Building Information Modeling	Fall 2021	3	11
CE 552	Building Information Modeling	Fall 2021	3	7
CE 160L	Civil Engineering Design	Spring 2022	3	41
CE 371	Structures for Construction	Spring 2022	3	15
CE 576-001	Project Delivery Systems	Spring 2022	3	10
CE 576-002	Project Delivery Systems	Spring 2022	3	18
CE 202	Engineering Statics	Summer 2022	3	7
CE 160L	Civil Engineering Design	Fall 2022	3	45
CE 202	Engineering Statics	Fall 2022	3	43
CE 452	Building Information Modeling	Fall 2022	3	3
CE 160L	Civil Engineering Design	Spring 2023	3	40
CE 202	Engineering Statics	Spring 2023	3	52
CE 371	Structures for Construction	Spring 2023	3	9

Course Evaluations

Number	Semester	# Responding	Instructor's Overall Teaching Effectiveness	Comfort Approaching Instructor	Overall
CE 160L	Fall21	15/44	4.40/5.00	4.80/5.00	4.33/5.00
CE 202	Fall21	18/36	4.11/5.00	4.50/5.00	4.17/5.00
CE 452	Fall21	7/11	4.14/5.00	4.71/5.00	4.57/5.00
CE 552	Fall21	4/7	4.75/5.00	5.00/5.00	4.75/5.00
CE 160L	Sp22	16/41	4.69/5.00	4.88/5.00	4.63/5.00
CE 371	Sp22	4/15	5.00/5.00	5.00/5.00	5.00/5.00
CE 576-001	Sp22	6/10	4.50/5.00	5.00/5.00	4.50/5.00
CE 576-002	Sp22	7/18	4.86/5.00	5.00/5.00	5.00/5.00
CE 202	Su22	2/7	N.A.	N.A.	N.A.
CE 160L	Fall22	18/45	4.33/5.00	4.78/5.00	4.67/5.00
CE 202	Fall22	40/43	4.77/5.00	4.78/5.00	4.78/5.00
CE 452	Fall22	2/3	N.A.	N.A.	N.A.
CE 160L	Sp23	10/40	4.60/5.00	4.80/5.00	4.20/5.00
CE 202	Sp23	49/52	4.61/5.00	4.80/5.00	4.76/5.00
CE 371	Sp23	8/9	5.00/5.00	5.00/5.00	5.00/5.00

**PROFESSIONAL SERVICE**

**Manuscript Reviewer**

1. *Engineering, Construction and Architectural Management*
2. *Practice Periodical on Structural Design and Construction*
3. *Transportation Research Board*
4. *International Journal of Environmental Research and Public Health*
5. *Sustainability*
6. *Journal of Modern Transportation*
7. *Revista de la Construcción. Journal of Construction (Chile)*
8. 2024 CI & CRC Joint Conference, Des Moines, IA, March 20 – 23, 2024
9. 2023 ASCE International Conference on Computing in Civil Engineering (i3CE 2023), Corvallis, OR, June 25 – 28 2023
10. 2022 CI & CRC Joint Conference, Arlington, Virginia, March 9 – 12, 2022
11. Transportation Research Board (TRB) 99th Annual Meeting, Washington D.C., January 12 – 16, 2020.
12. 36th International Symposium on Automation and Robotics in Construction (ISARC 2019), Banff, Alberta, Canada, May 21-24, 2019.

**University Service (University of New Mexico)**

Engineers Without Borders (EWB) Student Chapter. Faculty Advisor, 2022 – 2023

Faculty Search Committee, Computational Mechanics position, 2022 to 2023

UNM SOE Engineering Open House, 2022

Graduate Student Committees:

1. Michele Anderson, Ph.D., Civil Engineering, University of New Mexico
2. Saif Ismail, Ph.D., Civil Engineering, University of New Mexico

**FUNDED RESEARCH PROJECTS**

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1. “Identification and Assessment of Musculoskeletal Disorders (MSDs) Risk for Concrete Formwork Systems.” Graduate Research Assistant, Small Studies Program, Center for Construction Research and Training (CPWR Small Study No. 20-2-PS), \$29,985, July 2020 – June 2021.