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EDUCATION

Ph.D. in Civil & Environmental Engineering Aug 2020-Dec 2024

- University of California, Berkeley, USA
- Dissertation: Model Selection Uncertainty: From Collapse Assessment of Seismically Isolated Buildings
- Advisor: Prof. Tracy Becker
- GPA: 4.00/4.00
- Selected Courses: Nonlinear Structural Analysis, Earthquake Protective Systems, Mechanics of Solids, Reinforced Concrete Structures, Numerical Solution of Differential Equations, Failure Analysis of Structural Material, Seismic Hazard Analysis and Design Ground Motions, Structural System Reliability.

M.S. in Civil Engineering Sep 2017-June 2019

- National Taiwan University, Taipei, Taiwan
- Thesis Title: Design of frictional-pendulum bearing systems subjected to pulse-like ground motions (doi:10.6342/NTU201902642)
- Advisor: Prof. Yin-Nan Huang
- GPA: 4.25/4.30 (3.99/4.00)

B.S. in Civil Engineering Sep 2014-June 2017

- National Taiwan University, Taipei, Taiwan
- GPA: 4.09/4.30 (3.93/4.00)

PUBLICATIONS

Journal Papers

Yang, Y.-H., Becker, T. C., Sone, T., & Kinoshita, T. (2023). "Sliding versus Rubber Bearings: Exploring the Difference in Collapse Probability." *Journal of Structural Engineering*, 149(7), 04023086.

Yang, Y.-H., Becker, T. C., Sone, T., Yoneda, H., & Kinoshita, T. (2023). "Lumped mass models for use in predicting collapse of an isolated building." *Engineering Structures*, 290, 116373.

Journal Manuscript in Progress

Yang, Y.-H., Becker, T. C. (2025). "Quantifying Model Selection Uncertainty in Structural Analysis: Methodology and Application." *Earthquake Engineering & Structural Dynamics* under review.

Yang, Y.-H., Becker, T. C., and Lopez Ruiz M. C., Yust M., Williams T., Murphy D. (2025). "Scaling, matching, and variability: effects of ground motion selection in performance of code-compliant bridges." *Earthquake Spectra* under review.

Yang, Y.-H., Lin, Y.-C., Chang, C.-C., Huang, Y.-N. (2025). "An experimental study of frictional-pendulum isolation system subjected to pulse-like ground motions." *Earthquake Spectra* under review.

Yang, Y.-H., Becker, T. C. (2025). "Model Selection Uncertainty in an Isolated Building." to be submitted to *Journal of Structural Engineering* for possible publication.

Conference Articles

Yang, Y.-H., Becker, T. C., Sone, T., & Kinoshita, T. (2024). "Variations in performance in extreme events

with selection of isolation type." *Proceedings of 18th World Conference on Earthquake Engineering*. Milan, Italy, 30 June-5 July.

Yang, Y.-H., Lin, Y.-C., Chang, C.-C., and Huang, Y.-N. (2019). "Performance of friction-pendulum bearing systems subjected to near-fault ground motions." *The 32nd KKHTCNN Symposium on Civil Engineering*, Daejeon, Korea, 24-26 October.

Yang, Y.-H., Lin, Y.-C., Chang, C.-C., and Huang, Y.-N. (2019). "Performance of friction-pendulum bearing systems subjected to near-fault ground motions." *International Conference in Commemoration of 20th Anniversary of the 1999 Chi-Chi Earthquake*, Taipei, Taiwan, 15-19 September.

Yang, Y.-H., Lin, Y.-C., Chang, C.-C., and Huang, Y.-N. (2018). "Experimental study of a frictional pendulum system subjected to pulse-like ground motions." *The Fourteenth National Conference on Structural Engineering/ The Fourth National Conference on Earthquake Engineering*, Taichung, Taiwan, 6-8 November.

Poster

Yang, Y.-H., Becker, T. C., (2024). "Incorporating expert knowledge for Bayesian model averaging in structural engineering." *NHERI Computational Symposium*, Los Angeles, CA, 1-2 February.

Presentation

Yang, Y.-H., Becker, T. C., (2024). "Quantifying model uncertainty in structural analysis – for structural design and risk assessment." *Reliability Seminar*, UC Berkeley, April 10th, 2024.

PROFESSIONAL APPOINTMENTS

Postdoctoral Researcher

ETH Zurich, Switzerland Mar 2025-Present

- Staff of professorship for Structural Dynamics and Earthquake Engineering.
- A project developing surrogate modeling approaches to optimize disaster recovery resource allocation under community resilience targets.
- Student semester project supervision
  - Mr. Altin Suli (MSc student), "Comparison of the CYD and YPS Methods for Displacement-Based Seismic Design".

Graduate Research Assistant

University of California, Berkeley, USA Dec 2020-Dec 2024

- A project focusing on quantifying the model uncertainty in structural analysis and seismic risk assessment.
- A project sponsored by California Department of Transportation (Caltrans), exploring the effects of ground motion selection methods on the performance assessment of bridges.
- A project sponsored by a Japanese contractor, Takenaka Corporation, exploring the differences in collapse probability between sliding and rubber bearings.

National Center for Research on Earthquake Engineering (NCREE) Aug 2019-Aug 2020

- Project Title: Development of design procedures for friction-pendulum bearing system in near-fault regions (2019 MOST project), Grant No.: MOST 108-2221-E-002-083.

Department of Civil Engineering, National Taiwan University Aug 2017-June 2019

- Project Title: Impact of near-fault ground motions on efficiency of passive control systems (2017 MOST Project), Grant No.: MOST 104-2628-E-002 -002 -MY3.

Graduate Teaching Assistant

- Course Title: CIVENG 247 Design of Steel and Composite Structures. Fall (Aug-Dec) 2024
  - Instructor: Prof. Tracy Becker
  - Teaching Evaluation: 6.45/7.00

- Course Title: CIVENG 193 Engineering Risk Analysis. Fall (Aug-Dec) 2023
  - Instructor: Prof. Ziqi Wang
  - Teaching Evaluation: 6.75/7.00
- Course Title: CIVENG 227 Earthquake-Resistant Design. Spring (Jan-May) 2023
  - Instructor: Dr. Andreas Schellenberg
  - Teaching Evaluation: 6.95/7.00
- Course Title: CIVENG 227 Earthquake-Resistant Design. Spring (Jan-May) 2022
  - Instructor: Prof. Tracy Becker
  - Teaching Evaluation: 4.58/5.00
- Course Title: Mechanics of Materials. Fall (Aug-Dec) 2018
  - Instructor: Prof. Yin-Nan Huang
  - Teaching Evaluation: 4.69/5.00

Internship July 2016 – Sep 2016
T.Y. Lin International Taiwan Consulting Engineers, Inc.

PROFESSIONAL LEADERSHIP AND SERVICE

SEMM Doctoral Students and Researchers (Student Organization), UC Berkeley Aug 2024-Dec 2024
- Academic Pathways directors
- In charge of workshops inviting faculty members to share experiences about professional development in academia.

Earthquake Engineering Research Institute (EERI) Student Chapter, UC Berkeley May 2023-Aug 2024
- Seminar Director of student chapter.
- In charge of the seminar and workshops, planning and actuation of the activity.

Student Committee for Faculty Search, UC Berkeley Dec 2024-Jan 2025
- Meeting with faculty candidates, faculty committee, and writing committee report.

Student Committee for Faculty Search, UC Berkeley Jan-Mar 2024
- Meeting with faculty candidates, faculty committee, and writing committee report.

CEE Scholars Mentorship Program, UC Berkeley July 2024-Dec 2024
- The program supports Prep and T-Prep CEE students and has an emphasis on providing support for first-generation students and students underrepresented in engineering.

TRAINING AND CERTIFICATES

Certificate in Teaching and Learning in Higher Education, UC Berkeley Jan 2025
- Includes participation in workshops on teaching, teaching observation, the creation of a teaching portfolio, and several other development activities.

Workshop for CEE GSIs, UC Berkeley Spring (Jan-May) 2022
- Consists of weekly short lectures, small and large group discussions, and interactive activities.

HONOR AND AWARDS

Taiwan Ministry of Education-UC Berkeley Fellowship 2020- 2024
- Support outstanding Taiwan graduate students who undertake a Ph.D. at UC Berkeley

Honorary Membership of the Phi Tau Phi Scholastic Honor Society 2019
- Only the top 3% of master's students in each college can apply for this award.

Academic Scholarship, Sinotech Engineering Consultants Inc. 2018

- Annual scholarship offered to an outstanding CE graduate student.

Academic Excellence Awards, National Taiwan University, Taipei, Taiwan

- Awarded to top 5% undergraduate students.
- Semesters awarded: Autumn 2014, Spring 2015, Autumn 2015, Spring 2016.

Best Structural Design Awards, Introducing and Demonstrating Earthquake Engineering Research in Schools (IDEERS) 2017

- An annual international shaking table competition organized by NCREE, National Applied Research Laboratories (NARLabs) and British Council (BC).

SKILLS

Structural Modeling and Analysis: OpenSees, ETABS, Perform3D, LS-DYNA, and AutoCAD

Numerical and Statistical Programming Languages: MATLAB, Python, Julia, and C++

NHERI SimCenter Tools: quoFEM, PBE, R2D, Dand EE-UQ