

# YOUNGSIK CHOI

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youngsik-choi.github.io

(Updated on Aug. 14, 2022)

## EDUCATION

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- PhD**    **Texas A&M University**, Mechanical Engineering - *Building Energy & HVAC*    May. 2022 –  
Advisor: Prof. Zheng O'Neill
- MS**    **Seoul National University**, Architectural Engineering - *Building Simulation*    Mar. 2020 – Feb. 2022  
Advisor: Prof. Cheol-Soo Park  
Thesis: 'Stochastic Setpoint Temperature Learning for Occupant Behavior-based Control'
- BS**    **Seoul National University**, Architectural Engineering    Mar. 2014 – Feb. 2020  
2-year absence to fulfill mandatory military service (Aug. 2016 – Jul. 2018)
- Peking University**, College of Engineering    Jul. 2016  
International Exchange Student (Summer session offered in English)

## FIELDS OF INTEREST

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Building Simulation, Occupant Behavior, Building HVAC Control, Energy Modeling, Machine Learning

## EXPERIENCE

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- Research Assistant**, Texas A&M University    May. 2022 –
- Teaching Assistant**, Seoul National University    Sep. 2020 – Feb. 2021
- 400.418 Creative Engineering Design, undergraduate course

## HONORS AND AWARDS

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- Emil Buehler Aerodynamic Analo Fellowship**    Aug. 14, 2022  
Fellowship, J. Mike Walker '66 Department of Mechanical Engineering, Texas A&M University
- Outstanding Paper Award (co-author)**    Apr. 29, 2022  
The 2022 Spring Annual Conference of the Architectural Institute of Korea
- Poster Session Award Winner (runner-up)**    Dec. 14, 2020  
The 2020 Winter Simulation Conference
- Organization Scholarship**    Sep. 2020 – Feb. 2022  
Full tuition, The Education and Research Foundation of Seoul National University
- Eminence Scholarship**    Mar. 2016 – Feb. 2020  
Full tuition, Seoul National University
- Certificate of Appreciation**    May. 3, 2018  
2018 Key Resolve R.O.K & U.S. Joint Exercise (Took charge of translation)

**Organization Scholarship**  
Full tuition, Moon-Ju Scholarship Foundation

Sep. 2015 – Feb. 2016

**Merit-based Scholarship**  
Partial tuition (40%), Seoul National University

Mar. 2015 – Aug. 2015

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## PROJECTS

**Optimizing Supply Air Temperature Control for Dedicated Outdoor Air Systems**  
ASHRAE 1865, @ Texas A&M University

May. 2022 – Mar. 2024

**Development of BEMS Algorithms**  
@ Seoul National University

Jun. 2020 – Feb. 2021

**Development of Real-time Diagnosis Technology of Home Energy Usage and Smart & Autonomous Control/Management System**  
@ Seoul National University

Jan. 2020 – Feb. 2022

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## CONFERENCE PROCEEDINGS

**Choi, Y., Shin, H.S., Cho, S., Ko, Y.D. and Park, C.S. (2020), Predictive Uncertainty of Residential Building Energy Model, Proceedings of the 2020 Winter Simulation Conference (*Best Poster Award*)**

**Choi, Y., Yi, D.H., Shin, H., Chu, H.G., Yoo, S. and Park, C.S. (2020), Application of transfer learning to a simulation model for room air temperature, Proceeding of Annual Conference of the Architectural Institute of Korea, Vol. 40-2, pp. 386-387**

**Choi, Y., Shin, H., Ko, Y., Cho, S. and Park, C.S. (2020), Predictive uncertainty of energy simulation model using Deep Ensembles, Proceeding of Annual Conference of the Architectural Institute of Korea, Vol. 40-1, pp. 290-291**

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## TECHNICAL SKILLS

**Building Simulation:** EnergyPlus modeling, Uncertainty analysis, Numerical methods, Machine learning

**Programming:** Python, Visual Basic, Arduino

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## OTHER EXPERIENCE

**Hyundai Engineering and Construction**

Dec. 2018 – Feb. 2019

- Worksite manager

**Republic of Korea Naval Mobile Construction Squadron**

May. 2017 – Jul. 2018

- Construction engineer & translator (mandatory military service)

**Republic of Korea Naval Academy**

Oct. 2016 – Apr. 2017

- Building facility manager (mandatory military service)