Ziyang Yu

phone: 303-5053293; email: Ziyang.Yu@colorado.edu

Education

2025-present University of Colorado at Boulder (CU Boulder)

Department of Civil, Environmental and Architectural Engineering

PhD student in Architectural Engineering (GPA: 3.8)

Focus: Energy savings for secondary window retrofit solutions

Expected graduation: May 2028

2022-2025 University of Shanghai for Science and Technology (USST)

School of Environment and Architecture

Degree: Master of Engineering, in Civil Engineering (GPA: 3.8)

Focus: Building indoor environment quality for pulsating ventilation

2018-2022 Nanjing Institute of Technology (NIT)

School of Environment and Architecture

Degree: Bachelor of Engineering, in Civil Engineering (GPA: 3.7)

Research Experience

2025-present Building Energy Smart Technologies Research Center

Project Title: Developing a New Paradigm for Deemed Energy Savings of Secondary Window Solutions

Project Team: John Zhai (CUB), Rob Tenent (NREL), Ziyang Yu (CUB)

2024-2025 Master's Dissertation

Project Title: Investigation of pulsating ventilation by fluidic oscillators on pollutant dispersion and ventilation performance in enclosed environments

2023-2024 China Shipbuilding Industry Group Co., Ltd.

Project Title: CFD simulation of the Ice Production Laboratory

2022-2023 Novo Nordisk. Co., Ltd

Project Title: CFD Assessment of B400 cold storage

Teaching Experience

2025 Fall Teaching Assistant (TA)

AREN 3010: Energy Efficiency Buildings

Instructor: Gregor Henze, Professor (CUB)

2026 Spring Teaching Assistant (TA)

AREN 2120: Fluid Mechanics and Heat Transfer

Instructor: John Zhai, Professor (CUB)

Publications

2025.12 Journal: Building Simulation (JCR Q1, IF=5.9)

Title: Vortex-driven pulsating flow control and pollutant transport enhancement in enclosed environment via fluidic oscillators

Co-authors: **Ziyang Yu**, Haidong Wang, Yuke Wang, Yufei Sun, Zhijun Zou, Wentao Wu, Yuwei Dai

Status: Accepted

2024.06 Journal: International Journal of Ventilation (JCR Q3, IF=2.3)

Title: Experimental study on the periodic pulsating ventilation by fluidic oscillator on pollutant dispersion and ventilation performance in enclosed environment

Co-authors: **Ziyang Yu**, Huimin Gao, Haidong Wang

Status: Published

Honors and Awards

2025.06 Shanghai Municipal Outstanding Graduate

Issued by: Shanghai Municipal Education Commission

2022.09 First Prize Scholarship

Issued by: University of Shanghai for Science and Technology

2022.06 National Top 100 Outstanding Graduates

Issued by: Chinese Society for Rock Mechanics & Engineering

2021.05 Provincial-Level Merit Student

Issued by: Jiangsu Provincial Department of Education

2021.05 Top 10 Outstanding Student

Issued by: Nanjing Institute of Technology

2018-2022 First Prize Scholarship (6 times)

Issued by: Nanjing Institute of Technology

Conference Activity

2025.08 Dalian, China

12th National Conference on Indoor Environment and Health (IEHB 2025)

2023.09 Shanghai, China

18th International IBPSA Conference and Exhibition (BS 2023)

2023.07 Shanghai, China

3rd International Conference for Global Chinese Academia on Energy and Built Environment (CEBE 2023)

Technical Skills

Energy modeling: THERM/WINDOW; EnergyPlus; eQUEST

CFD/CAD: ANSYS Fluent; ICEM CFD; SolidWorks; SpaceClaim; GAMBIT

Programming: EES; Python; MATLAB; R

Visualization: Origin; Tecplot

Productivity: Microsoft Office (Word, Excel, PowerPoint)