

MATTHEW A. HAWKS, PE, SE

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4513 Rockwood Drive | Raleigh, NC 27612



Seeking an opportunity to contribute my skills in innovative engineering design, research, and project management to drive cutting-edge products from concept to market.

Experience

- Research and Teaching Assistant** 2021 – Present
College of Design, NC State University | Raleigh, NC
- *Scientific Research*: Performed systematic review of existing knowledge base, stakeholder preferences, and regulatory landscape. Researched new AI control systems.
 - *Graduate-Level Instruction*: Taught masters-level courses over four semesters on building energy efficiency strategies and technologies, renewable energy, building heating and cooling engineering, and energy modeling and simulation.
 - *Industry Engagement*: Participated in the scientific community through publication in leading journals and a planned presentation at the ASHRAE winter conference.
- Senior Associate** 2014 – 2019
Uzun+Case | Raleigh, NC
- *Project Management & Structural Design*: Led structural design teams for over 40 successful projects ranging from small retail RTU upfits to a 22-story, mixed-use tower built on top of an existing five-story parking structure.
 - *Leadership & Business Development*: Implemented the strategic business venture of launching a branch office. Strategically used market analyses to grow office staff by 300% in four years and develop a regional reputation for excellence.
- Construction Project Manager** 2013 – 2014
RCG Ventures | Atlanta, GA
- *Capital Expenditure Projection & Tracking*: Budgeted, tracked, and managed construction for all major capital improvement projects and tenant buildouts in a portfolio of 70 anchored retail shopping centers. Estimated annualized total construction expenditure of \$10 million for year 2014.
 - *Investigative Due Diligence*: Performed assessments of properties prior to closing to identify needed expenditures for purposes of budgets and offer negotiations.
- Structural Engineer** 2011 – 2013
Uzun+Case | Atlanta, GA
- *Problem Solving & Mitigation*: Designed timely solutions to in-field errors and unforeseen issues. Examined the entire project cycle to reduce potential issues.
 - *Project Coordination & Stakeholder Management*: Partnered with the design team, owners, and contractors to ensure proper design and construction execution.
 - *Engineering Analysis & Innovative Design*: Performed in-depth, high-level analyses and research. Used peer review and cross-analysis to validate input and model parameters to ensure accuracy of design, output, and outcome.
- Design Engineer** 2007 – 2010
SKA Consulting Engineers | Greensboro, NC
- *Investigative Analysis & Structural Design*: Performed analysis and design for a wide range of existing buildings and new projects.
 - *Document Management*: Managed project drawing standards, plan preparation, shop drawings, change orders, RFIs, and any other communication or documentation.

Education

North Carolina State University Raleigh, NC PhD in Design Candidate 4.0 / 4	2021 – Present
Georgia Institute of Technology Atlanta, GA Master of Science in Civil Engineering 3.60 / 4	2010 – 2011
Virginia Polytechnic Institute and State University Blacksburg, VA Bachelor of Science in Civil Engineering, Cum Laude 3.48 / 4	2003 – 2007

Professional Licensing

Professional Engineer State of North Carolina License No. 041638	2013 – Present
Structural Engineer State of Illinois License No. 081007539	2013 – Present

Industry Design Awards

Green Building Initiative Green Globes Honorable Mention	2020
Structural Engineers Association of North Carolina Excellence in Structural Engineering Award	2019
American Institute of Architects Design Excellence Award Honor Award Design Merit Award Interior Architecture Award	2016 2016 2018 2020 2021
Engineering News-Record Southeast Award of Merit	2016 2020
American Concrete Institute 1 st Place Award Award of Excellence Outstanding Achievement Award	2014 2015 2015 2015 2017
Georgia Engineering Alliance Engineering Excellence Grand Award	2014

Scientific Publications

Hawks & Cho, <i>ASHRAE Transactions</i> Building-scale thermal energy storage: Design development and case study evaluation of a whole-building, soil-based thermal battery	Planned 2025
Hawks & Cho, <i>Renewable & Sustainable Energy Reviews</i> Review and analysis of current solutions and trends for Zero Energy Building thermal systems	2024

Academic Teaching Experience

ARC 523: Building Energy Modeling & Simulation NCSU Instructor	Fall 2022, 2023, 2024
ARC 522: Energy Efficiency & Renewables NCSU Instructor	Spring 2023

Highlighted Software Skills

EnergyPlus	SketchUp	Revit	Microsoft Office
OpenStudio	Fusion360	AutoCAD	ANSYS