

# Charles D. Nicholson

## About

Charles Nicholson actively engages in research encompassing various facets of system engineering and data science, focusing on enhancing community resilience in the face of disruptive events through analysis of complex interdependent networks, predictive modeling, and optimization to support decision-makers. His research spans a broad spectrum of applications, including, but not limited to (i) mitigating impacts of natural hazards on actual cities and towns across the US, (ii) advancing public health capabilities and practices (domestically and abroad) to prevent the spread of infectious and vector-borne disease, and (iii) identifying and addressing vulnerabilities in supply chain networks impacting national security concerns. OU ISE is proud to foster a diverse community of undergraduate, Masters, and PhD students from around the globe who are making incredible contributions to meaningful research with tangible real-world impact.

## Research Domains

- Community resilience
- Novel predictive and classification modeling approaches and applications
- Applied metaheuristics

## ISE Impact Domains

- [Cyber-Physical-Social Systems](#)
- [Health and Medical Systems](#)
- [Aerospace and Defense Systems](#)

## **Experience and Distinctions**

- Faculty Advisor, Data Science and Analytics Student Organization
- Chair, Executive Committee, Data Science and Analytics Institute
- Member, Committee A, School of Industrial and Systems Engineering
- Co-chair, Recruiting and Retention Committee, Industrial and Systems Engineering
- Member, Faculty Senate, University of Oklahoma
- Teaching Scholars Award, Gallogly College of Engineering, 2017