

# Kurtis Konrad

[kekonrad@ncsu.edu](mailto:kekonrad@ncsu.edu) 919-604-4338 [linkedin.com/in/kurtiskonrad](https://www.linkedin.com/in/kurtiskonrad)

## Education

North Carolina State University, Raleigh, NC

Ph.D. Industrial Engineering

Fall 2023

Master's in Industrial Engineering

May 2019

B.S. Industrial Engineering; B.S. Economics

December 2018

Minors: Statistics, Physics, Mathematics

## Relevant Computer Skills

Python, Matlab, VBA, Gurobi, SAS, SQL, R, Excel, Access, LaTeX, Tableau, Oracle, SAP Scripting, SharePoint, Simio

## Technical Skills and Applications

I apply optimization, simulation, queueing, machine learning, mechanism design, and other operations research methodologies to problems in healthcare, humanitarian logistics, and other high-impact industries.

## Work Experience

### **Premier Healthcare**

Summer Consultant Intern (Summer 2022). Developed a computer modelling program to assist a hospital transfer center in identifying the potential impact of operational changes on key hospital metrics. Created a Tableau dashboard to analyze a hospital lab performance. Identified a potential yearly savings of over \$500,000 in unnecessary labor spend.

### **NC Division of Child Development and Early Education**

Website Developer (2020 – 2021). Performed full technology upgrade and deployment of state-wide website and database systems for NC Pre-K preschool management using VB.net and Oracle.

### **Edward P. Fitts Dept. of Industrial Engineering**

Course Instructor (Spring 2022, Summer 2020 - 2022). Prepared and taught courses in stochastic modelling and deterministic optimization. Delivered weekly lectures. Produced and graded course assignments. Developed a Python program to automatically produce randomized and individualized LaTeX-based tests and corresponding answer keys that reduce cheating risk.

### **UTC Aerospace Systems**

Optimization Consultant (Spring 2019). Developed the Boa ConSchedule, a Python-based, stand-alone linear optimization tool used to automate business-critical production scheduling. It reduced turn-around-time for a weekly schedule from 3 days to 3 minutes.

Software and Data Management Co-op (June 2017 – May 2018). Created and implemented sleek, efficient, and time-saving software programs to assist in daily operations. Connected Excel applications with SharePoint data and SAP transactions to better integrate and analyze disparate data. Utilized machine learning to develop complex data management and analysis tools that effectively communicate data trends and revenue management strategies to the Contracts team.

### **The Lego Store**

Brick Specialist and Director of Special Projects (2016-Present). Inspire future engineers and provide excellent customer service. Develop time-saving daily operational tools in Excel VBA for implementation in stores nation-wide.

## Activities and Organizations

- Industrial Engineering Ambassador (2018 – Present). Assist with student advising, offer department tours, lead information sessions, and conduct outreach for high-schoolers and first-year students.
- NC State INFORMS Chapter (2019 – Present). Student Treasurer (2019-2020).
- NC State "Power Sound of the South" Marching Band (2015, 2018). Equipment Manager (2015, 2018).
- Cooperative Baptist Student Fellowship (2016 – 2019). President (2017 – 2019). Statewide Leadership Formation Taskforce Co-Chair (2018). Led the development and adoption of a statewide organization.

## Awards

Edward P. Fitts Fellowship (2020). Dean's Doctoral Fellowship (2019). ISE Mentor Award (2019). Faculty Senior Scholar (2017). Alpha Pi Mu Honor Society (2016). Boy Scouts of America Eagle Scout (2011).