

# TIMOTHY RUEL

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1630 West Balmoral Avenue, Apt 2B, Chicago, IL 60640

## EDUCATION

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### Northwestern University

*Ph.D. Candidate in Statistics*

*Master of Science in Statistics*

Evanston, IL  
Expected December 2024  
September 2019 - March 2022

### University of Illinois at Urbana-Champaign

*Bachelor of Science in Applied Mathematics and Statistics*

Champaign, IL  
August 2014 - May 2018

## EXPERIENCE

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### CCC Intelligent Solutions

*R&D Data Science Intern*

Chicago, IL  
June 2023 - Present

- Applied statistical expertise to gain swift understanding of company's data architecture and industry practices
- Conducted comprehensive exploratory data analysis on large automotive insurance claims dataset (>1M rows) to identify parts of damaged vehicles and address challenges arising from inconsistent ground truth labels across different vehicle trims
- Designed robust 3-layer MLP neural network incorporating prior existence and damage rates for individual vehicle parts as inputs along with their associated measures of confidence in order to account for above labeling discrepancies
- Maintained regular collaboration with data science team, actively participating in discussions on project progress, presenting findings, and contributing to recognition of areas for improvement

### The STEPP Center

*Research Assistant*

Institute for Policy Research, Northwestern University  
April 2019 - Present

- Spearheaded development of R package implementation for webtool [thegeneralizer.org](http://thegeneralizer.org) designed to assist K-12 education researchers in crafting effective sample recruitment plans that enhance generalizability of their studies.
- Evaluated methodologies employed by eight education research clearinghouses to document best practices and recommend actions to strengthen points of weakness
- Contributed significantly to administration of two professional development workshops for education researchers, funded by Institute of Education Sciences and National Science Foundation

### Faculty Senate Salary and Budget Committee

*Data Analyst*

Northwestern University  
May 2022 - June 2022

- Performed extensive data wrangling on dataset containing information detailing salaries of Northwestern faculty
- Produced informative graphics and tables illustrating faculty salaries and percent raises over preceding 8 years as well as their projected losses over next 40 years due to six-month freeze in retirement benefits resulting from COVID-19 spending cuts

### Department of Sociology

*Research Assistant*

Georgia State University  
June 2017 - August 2017

- Oversaw cleaning and preprocessing of dataset comprising over 50,000 observations that documented infrastructure and environment of low-income neighborhoods in Atlanta
- Employed principal component analysis to reduce dimensionality of data, facilitating identification of key neighborhood characteristics strongly associated with danger and incivility

## HONORS

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### Data Science Initiative

*Data Science Fellow*

Northwestern Institute on Complex Systems  
Awarded September 2019

## SKILLS

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**Programming:** Python, R, SQL, SAS, Excel

**General:** Critical Thinking, Leadership, Teamwork, Communication, Adaptability, Time Management