

# Ngoc Minh Quang Nguyen

☎ (937) 925-6791

✉ nminhquang.99@gmail.com

🔗 qntkhvn.netlify.app

🌐 linkedin.com/in/mqnguyen

🌀 qntkhvn

🐦 @qntkhvn

## EDUCATION

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**Loyola University Chicago**

Chicago, IL

**Master of Science, Applied Statistics**

August 2020 - December 2021 (Expected)

- Current GPA: 4.00/4.00

**Wittenberg University**

Springfield, OH

**Bachelor of Science, Mathematics and Data Science**

August 2017 - May 2020

- Summa Cum Laude; GPA: 3.97/4.00
- Departmental Honors in Mathematics
- Phi Beta Kappa and Pi Mu Epsilon

## RESEARCH INTERESTS

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Machine learning; statistical applications in sports; data visualization; reproducibility in data science; statistics and data science education; statistical consulting

## RESEARCH EXPERIENCE

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**Loyola University Chicago**

Chicago, IL

**Graduate Research Assistant**

August 2020 - present

Advisor: Dr. Gregory J. Matthews

- Estimated the aging curves in baseball using multiple imputation with a hierarchical structure.

**Wittenberg University**

Springfield, OH

**Senior Honors Thesis**

August 2019 - May 2020

Advisor: Dr. Douglas M. Andrews

Title: Predictive Models of English Premier League Goal Scoring

- Determined the consistency between the properties of goal scoring (number of goals, time between goals, time location of goals) in the EPL and the key distributions of the Poisson process (Poisson, exponential, uniform.)
- Utilized Poisson regression to simulate and predict the outcomes for a Premier League season. Explored various team metrics including the chances of winning the league title and getting relegated.

## WORK EXPERIENCE

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**Wittenberg University**

Springfield, OH

**Math Workshop Head Tutor**

August 2018 - May 2020

- Tutored all levels of Mathematics and Statistics/Data Science; and introductory levels of Computer Science, Economics, and Chemistry. Worked with students one-on-one as well as in small groups.
- Coordinated annual GRE Quantitative training sessions. Created basic math skills assessment worksheets for introductory-level Statistics classes.
- Performed daily updates on student activity tracking database. Analyzed time data and fixed bad time entries.
- Assisted the director with the transition to remote tutoring and implementing new video conferencing platform.

**Faculty Aide (Teaching/Research Assistant)**

August 2018 - May 2020

- Provided aid to Dr. Sunny Jeong with Business courses including International Business, Business Research Methods, Global Social Entrepreneurship, and Business Ethics and Leadership.

- Updated course websites, created and graded online assignments, and compiled student grades.
- Participated in professor's research on finding new literature and resources. Developed new learning case studies and reading questions.

**Clarkston Senior High School**

Clarkston, MI

**S.U.M. (Student Understanding Math) Assistant**

January 2017 - May 2017

- Facilitated daily Algebra II lessons and assisted students with in-class materials and homework assignments.

## COMPUTING SKILLS

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- Techniques: data visualization, data wrangling, data mining, machine learning, statistical inference, web scraping
- Advanced knowledge: R/RStudio - tidyverse (dplyr, ggplot2, tidyr), R Markdown
- Working knowledge: Python; Java; SQL; SAS; Git/GitHub; L<sup>A</sup>T<sub>E</sub>X

## PRESENTATIONS & POSTERS

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- Poster. "*Concerns Regarding Sport Climbing Competition Format and Scoring System: Who's Suffering?*" UConn Sports Analytics Conference, October 2021. **Student Poster Award Winner.**
- Presentation. "*Poisson Modeling and Predicting English Premier League Goal Scoring.*" Graduate Research Symposium, Loyola University Chicago, March 2021.
- Presentation (pre-recorded). "*Poisson Modeling and Predicting English Premier League Goal Scoring.*" Midwest Sports Analytics Meeting, November 2020.
- Presentation. "*Poisson Modeling and Predicting English Premier League Goal Scoring.*" International Research Symposium, International Education Week, Loyola University Chicago, November 2020.
- Presentation. "*Poisson Modeling and Predicting English Premier League Goal Scoring.*" Ohio State Sports Analytics Conference, November 2020.
- Poster. "*Poisson Modeling and Predicting English Premier League Goal Scoring.*" NextGen: Data Science Day, New England Statistical Society, November 2020. **Poster Competition Co-Winner, Undergrad/MS Group.**
- Poster. "*Poisson Modeling and Predicting English Premier League Goal Scoring.*" Carnegie Mellon Sports Analytics Conference, October 2020.
- Poster. "*Poisson Modeling and Predicting English Premier League Goal Scoring.*" UConn Sports Analytics Conference, October 2020.
- Presentation (pre-recorded). "*Something Fishy About Manchester United's Distribution of Goals Scored.*" Department of Mathematics and Computer Science's Colloquium Series, Wittenberg University, October 2020.

## AWARDS

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**Merit Award**

Loyola University Chicago

MS in Applied Statistics Program

2020-2021

**The Charles and Elsie Little Mathematics Award**

Wittenberg University

Department of Mathematics and Computer Science

2020

- Awarded to the most outstanding senior mathematics and data science majors.

**Mathematics 202 Award**

Wittenberg University

Department of Mathematics and Computer Science

2019

- Awarded to an outstanding first-year student in the introductory calculus sequence.

**Textbook Award**

Wittenberg University

Department of Mathematics and Computer Science

2019

- Awarded to first-year students majoring in the Department of Mathematics and Computer Science.

**International Student Scholarship and  
International Student Grant Program**

Wittenberg University  
2017-2020

## HONORS

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**Summa Cum Laude**

Graduated with the highest distinction

Wittenberg University  
2020

**Departmental Honors in Mathematics**

Department of Mathematics and Computer Science

Wittenberg University  
2020

**Phi Beta Kappa**

Omicron of Ohio Chapter

Wittenberg University  
2020

**Pi Mu Epsilon**

Ohio Upsilon Chapter

Wittenberg University  
2020

**Pick and Pen**

Junior honorary emphasizing leadership, service and scholarship

Wittenberg University  
2019

**Phi Eta Sigma**

Midwest Region Chapter

Wittenberg University  
2018

**Dean's List**

Wittenberg University  
All semesters: Fall 2017 - Spring 2020

## COURSEWORK

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**Graduate**

Loyola University Chicago

**Statistics** (\* In progress)

Current GPA: 4.00/4.00

- Predictive Analytics\*
- Statistical Computation and Simulation\*
- Statistical Consulting\*
- Statistical Design and Analysis of Experiments\*
- Advanced Statistical Inference (Independent Study)
- Nonparametric Statistics
- Categorical Data Analysis
- Probability & Mathematical Statistics
- Applied Regression Analysis
- SAS Programming & Applied Statistics

**Undergraduate**

Wittenberg University

**Statistics/Data Science**

Major GPA: 4.00/4.00

- Mathematical Statistics
- Univariate Probability
- Statistical Modeling
- Introduction to Data Science with R
- Computer Programming II with Java
- Computer Programming I with Python
- Databases
- Introductory Statistics/Data Analysis

**Mathematics**

Major GPA: 4.00/4.00

- Graph Theory
- Real Analysis
- Abstract Algebra
- Linear Algebra
- Multivariable Calculus
- Differential Equations
- Foundations of Geometry
- Discrete Mathematics & Proofs
- Calculus II
- Calculus I

## DATA COMPETITIONS

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### Humana-Mays Healthcare Analytics Case Competition

Texas A&M University, Mays Business School

2021 Competition, Round 1

Place: 2/75

### SLICED

Kaggle Competition

Season 1, Episode 9 - 2021

Place: 1/23 (Audience participation)

Season 1, Episode 10 - 2021

Place: 2/27 (Audience participation)

## ACTIVITIES

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### Wittenberg University

Springfield, OH

International Orientation Assistant

2018 & 2019

Witt Math Club, Secretary and Chair of Contest Recruitment

2018-2020

Trivia Night Host

2020

East Asian Studies Club

2019

American International Association

2017

## COMMUNITY SERVICE

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### The Fuller Center for Housing

Americus/Albany, GA

Wittenberg University's Service Immersion Spring Break Trip

2019

## LANGUAGES

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Bilingual: **Vietnamese** (native language) and **English** (proficient)

## EXCHANGE PROGRAMS

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### Clarkston Senior High School

Clarkston, MI

Educatus Group, US F-1 Academic Exchange Program

2016-2017

### Lead Hill High School

Lead Hill, AR

Cultural Academic Student Exchange (CASE)

2015-2016