

# ALEXANDER C. MURPH

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## EDUCATION

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### University of NC at Chapel Hill

August 2018 - Present

*Second year*

*Chapel Hill, NC*

Statistics & Operations Research (STOR) Ph.D. candidate; Faculty Advisor: Jan Hannig

### Bucknell University

August 2014 - May 2018

*Class of 2018*

*Lewisburg, PA*

B.S. in Mathematics, B.A. in Computer Science, Minor in Women's & Gender Studies, *magna cum laude*

## PUBLICATIONS

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A. Murph, A. Flynt, and B. K. King. *Comparing Finite Sequences of Discrete States with Non-Uniform Time Intervals*. Currently under review at *ACM Transactions on Algorithms*

E. Faden, A. Mitchell, A. Murph, and N. Ryan. *Mr. Hulot's Invisible Gorilla: Jacques Tati and Inattentional Blindness*. Currently under review at *Projections*.

## EXPERIENCE

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### UNC Graduate School

August 2019 - Present

*Research Assistant*

*Chapel Hill, NC*

- Developing novel fiducial approaches to classical inferential problems, and illustrating the usefulness in context to current methods.
- Exploring recent work on admissibility of models used to enhance, and even replace, ubiquitous sparsity assumptions. Actively researching how to use EAS methodology for model selection with Gaussian Graphical Models.

### UNC STOR Department

August 2018 - Present

*Instructional Assistant*

*Chapel Hill, NC*

- Holds office hours and tutorial sessions to address student questions.
- Grades homework and writes detailed solutions; proctors exams and addresses all student concerns.
- Current experience is with Introductory Statistics (undergraduate), Time Series & Forecasting (graduate), and Machine Learning (graduate) courses.

### Bucknell Geisinger Research Initiative

June 2016 - May 2018

*BGRI Research Apprentice*

*Lewisburg, PA*

- Creatively used Math & Computer Science expertise to develop predictive models with real world data.
- Showed initiative and resourcefulness in conducting individual research to solve problems obstructing progression of projects.
- Responsibly handled sensitive patient data; showed respect for the privacy of study participants.

## EXTRACURRICULAR WORK

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### AYA Cancer Committee for the UNC Cancer Center

August 2019 - Present

*Lead Organizer*

*Chapel Hill, NC*

- Organizes a group of fellow Adolescent and Young Adult (AYA) cancer patients in the Triangle area to advise recent efforts for specialized AYA care in the UNC Cancer Center.

### Bucknell Diversity Outreach Team

November 2015 - May 2018

*Member*

*Lewisburg, PA*

- Actively participated in efforts at Bucknell to make community more diverse.

## TECHNICAL SKILLS AND ACHIEVEMENTS

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### Computer Skills - Advanced

Python, R, Java, C,  $\text{\LaTeX}$ , Microsoft Office

### Achievements/Awards

Eagle Scout, Phi Beta Kappa, Pi Mu Epsilon Mathematics Award

### GitHub Portfolio

@sirmurphalot