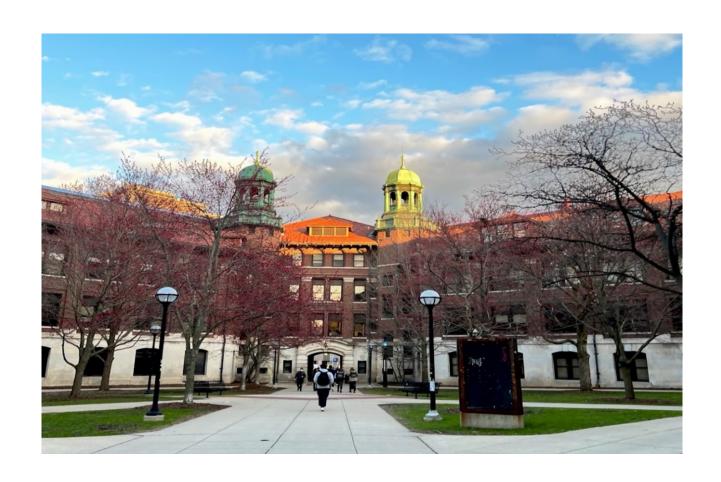# JOURNEY LECTURE: SNIGDHA PANIGRAHI

Big Data Summer Institute

July 22, 2022

BRIEF INTRODUCTION

I am an Assistant Professor in Statistics.

BRIEF INTRODUCTION

My research interests involve improving **REPLICABILITY** from big data:

I think of ways to address "**SELECTION BIAS**" in **INFERENTIAL PRACTICES**.

WHERE DID IT ALL START?

I received my training in Statistics (Bachelor's and Master's) from the **Indian Statistical Institute (ISI), Kolkata**. (5 Year Integrated Course)

Unique aspect of ISI: focused on research and education in Statistics

Trivia about ISI: established by **P.C. Mahalanobis**; model for the first US institute of Statistics at the Research Triangle.

WHERE DID IT ALL START?

I was exposed to Statistics as a discipline, and its connections with Probability and Mathematics.

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Other Firsts

I became aware of gender-skewness in the field (and in my future career path) for the first time.

11 Years Ago ……

EXPERIENCING RESEARCH

My first original result…

How does the Maximum of a "Set of Random Variables" (A.K. A. Stochastic Process) look like??

EXPERIENCING RESEARCH

What did I learn from this experience?

I enjoyed the process of creating something original, I liked the lack of structure in this work experience, I might like Grad School for some more years...

My PhD Experience

Dept of Statistics (Sequoia Hall), STANFORD UNIVERSITY

I grew a lot as an independent researcher and beyond…

PhD program: you spend a lot of time with yourself

Dissertation: New methods for Selective Inference

Prof. Jonathan Taylor

My PhD Experience

Learned a new process of creativity: Language (Language of Code)

Intuition, More Questions, and Some Answers

Here I am now: at the Dept of Statistics, the UM

Data scientists/Statisticians/Analysts: diagnose patterns from big data in almost no time, all thanks to statistical (machine) learning!

But are these patterns for real? Probably, these could be due to what is called "noise" — unwanted and random variations in data

Uncertainties in Patterns

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Where I hope to reach next?

I want some of the tools I develop to reach empirical scientists in different disciplines: find language, software, and ease of adaptation

Long Process: Can't jump steps, Break it down into short-term goals,

DO NOT BE DISCOURAGED BY CRITICISM (e.g., rejections)