My UNC Biostatistics Experience

Che Smith

Doctoral Student
My Journey to UNC

• « I like math »

• « I want to positively impact the world »
Choosing UNC

• Department reputation
• Competitive funding package
• Opportunities for mentoring
• Collaborative environment
• Ideal location

• These are all things I learned from my visit!
My Dissertation

Model Selection for Nonnested Linear Mixed Models

Advisor: Dr. Lloyd Edwards
Dissertation - Background

• Model Selection
  – Choosing a simple and accurate model

• Linear Mixed Models
  – Useful for longitudinal data

• Nested vs. Nonnested Models
Dissertation – General Approach

• Defining cases of nonnested-ness

• Extended Information Criterion
Application

• Interest in aging research

• Using the EPESE dataset to build and compare models
  – National Institute on Aging study, 1982-1997
  – Four study sites, including Duke Univ., NC
  – Blood pressure, age, visit
My Progress

• Reviewing current literature
• Defining terms and notation
• Accessing and working with data
• Programming the EIC
Implications

• Better defining EIC for mixed models

• Improving statistical computation

• Enhancing model building for aging research
Other Activities

- Aging Research Working Group
- IMSD: Teaching and Consulting
- Health Disparities Certificate
- Minority Student Caucus
Career Aspirations

• Professor of Biostatistics

• Teaching, Collaborative Research, and Service
Enjoy your visit!