

# **Ty Darnell**

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## **EDUCATION**

### **MS Biostatistics**

**University of North Carolina at Chapel Hill (2018-2020)**

**Thesis:** GeneticMediation: An R Package for Causal Mediation Analysis of ROSMAP Data

- Conducted causal mediation analysis and identified pathways of SNP, gene, and ChIP-seq peak effects on Alzheimer's Disease
- Developed and documented an R package to clean, process, and analyze the data
- Built a documentation website <https://tydarnell.github.io/GeneticMediation>

**Advisor:** Dr. Di Wu

**Relevant Coursework:** Survival Analysis, Statistical Consulting, Regulatory Science, Linear Models, Longitudinal Analysis, Categorical Analysis, Statistical Inference, Data Science, Epidemiology

### **BS Middle Grades Education: Mathematics and Social Studies**

**Appalachian State University, Boone, NC (2009-2013)**

## **WORK EXPERIENCE**

### **Mathematics Teacher, Department Chair**

**Horton Middle School, Chatham County Schools, Pittsboro, NC (2013-2018)**

- Collaborated with a team of teachers to ensure student success
- Created curriculum that used real world applications of algebra
- Helped students gain basic financial literacy
- Used data to drive instruction and identify students in need of remediation and enrichment
- Created after-school tutoring program to help struggling students two days a week
- Initiated a running club to help promote wellness and encourage students to build relationships with each other outside the classroom
- Co-led chess club

### **Assistant Director of Youth Camp**

**UNC-CH Faculty-Staff Recreation Association Summer Camp (2007-2012)**

- Directed camp activities and organized group activities for 30-40 children ages 9-12
- Established and maintained time schedules for activities

## **Skills**

- **Programming:** R, SAS, Python, Bash, MATLAB
- **Tech/Tools:** LaTeX, Markdown, Git, GitHub