

Tyler Grimes

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Personal Statement

A statistician with a passion for genomics and clinical research, developing methods in predictive modeling, graphical models, and survival analysis. With a background in computer science, I strive to build efficient and user-friendly software to implement the statistical tools that I develop. As a statistician in collaborative projects, my role is to (1) help formulate empirical research questions, (2) design experiments that produce informative and high-quality data, (3) develop a plan for analyzing the data, and (4) visualize and communicate the findings.

Employment

Senior Bioinformatics Analyst

Dec. 2021 – present

Emmes

- Develop bioinformatics software for processing, analysis, and management of -omics data.
- Authors reports and manuscripts to summarize -omics data analysis.
- Provide statistical input for the development of clinical study protocols with -omics endpoints to ensure that the design and methods are scientifically valid and feasible.
- Write analysis plans that outline analysis strategies and algorithms for -omics data analysis.

Assistant Professor of Statistics

Aug. 2020 – present

University of North Florida, Department of Mathematics and Statistics

- Conduct independent and collaborative research, currently focused on applying probabilistic graphical models to high-dimensional genomics data in prediction and classification models.
- Teach graduate courses on Sampling and Statistical Quality Control.
- Teach undergraduate courses including Probability and Statistics, Statistical Methods I & II, and Elementary Statistics for Health and Social Sciences.
- Direct student projects through Capstone and Independent Study. Titles include: “Probabilistic graphical models and their applications”, “Survival prediction using autoencoders and AFT models”, and “Unsupervised learning: principal component analysis.”

Statistician – VA IPA

2018 – 2020

U.S. Department of Veterans Affairs, Brain Rehabilitation Research Center

- Assisted in the design and analysis of experiments; coded simulations for sample size calculations; wrote the statistical analysis plan for grant applications; analyzed experimental data; reported and discussed results with collaborators.

Education

Ph.D. Biostatistics, University of Florida, Gainesville FL

2016 – 2020

M.S. Mathematics, concentration in Statistics, University of North Florida, Jacksonville FL

2014 – 2016

B.S. Mathematics, minor in Computer Science, University of Central Florida, Orlando FL

2010 – 2014

Skills

Communication: Excellent oral and written communication skills.

Data analysis: Knowledgeable in design of experiments, sample size calculations, handling missing data, statistical modeling, hypothesis testing, interpreting results, and assessing limitations.

Programming: Proficient with R in all aspects of data analysis.