Isaac Ray

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Education

Texas A&M University — College Station, Texas

Ph.D. in Statistics — Aug 2021–May 2025

B.S. in Applied Mathematical Sciences, GPA: 3.96/4.00 — Aug 2018–May 2021

- Minor in Statistics, Minor in Computer Science
- Summa Cum Laude
- Honors in Mathematics

Highlighted Coursework

- Computational Statistics
- Mathematical Statistics
- Measure Theoretic Probability
- Bayesian Modeling & Inference
- Advanced Bayesian Computation
- Statistical Methodology
- Applied Data Science
- Spatial Statistics
- Database Management
- Numerical Analysis & Optimization
- High Performance Computing
- Data Structures and Algorithms
- Computer Organization
- Functional Programming

Experience

Shell USA

Data Scientist — Feb 2022–Present

Texas A&M University - Department of Statistics — College Station, Texas

Research Assistant — Dec 2021–Present

- Developed method for density estimation on complex and constrained domains in a Bayesian framework
- Published R package implementing this density method and a regression method under similar constraints

Graduate Assistant Teacher — Aug 2021–Dec 2021

- Prepared and taught material on generative models, clustering, dimension reduction, hypothesis testing, classification and regression, and experimental design to a class of over 100 students
- Assisted faculty instructor with grading assignments

Texas A&M University - Division of IT — College Station, Texas

Student Supervisor — Aug 2019–May 2021

- Supervised daily operations of the Help Desk comprised of up to 20 concurrently active technicians providing service to over 100,000 campus members
- Aided in incident response, service provision, training curriculum development, and policy decisions within the Division of IT

Student Technician — Oct 2018–Aug 2019

- Provided technical support by working directly with University affiliates in person, over the phone, and through written communication
- Coordinated with all other teams in the Division of IT to resolve over 10,000 incidents

JERL H&B Laboratories - ARG Labs   Dallas, Texas
IT Consultant   May 2019–Aug 2019
  - Directed $1000 in computing infrastructure upgrades
  - Developed new system for formula pricing and inventory management using scripted documents

SKILLS

- **Proficient:** Git, Office Suite, Data Visualization, Technical Writing
- **Intermediate:** Cloud Services, Computing Hardware
- **Familiar:** Distributed Computing, Operating Systems

LANGUAGES

- **Proficient:** R, Quarto, C++, Shiny, tidyverse, SQL, LaTeX
- **Intermediate:** C, Python, Haskell, Java
- **Familiar:** JavaScript, VBA

PROJECTS

BASTION (R, C++)   College Station, Texas
Author / Maintainer   Dec 2021–Present
  - Wrote an R package implementing specialized graph operations with a vignette example of performing non-parametric regression and density estimation on data lying on complex or constrained domains

TAMU Datathon 2021 (R, Shiny)   College Station, Texas
Submitter   Oct 2021
  - Scraped and compiled retail coffee menu data into an R Shiny app

TAMU COVID-19 Dashboard (R, Shiny)   College Station, Texas
Co-Team Lead   Aug 2020–Dec 2020
  - Helped to develop a dashboard using R to automatically fetch, clean, and process data related to COVID-19 in order to generate visualizations to be used by the Texas A&M Health Science Center and University administration

EXTRACURRICULAR ACTIVITIES & CERTIFICATIONS

- Vice President of Statistics Graduate Student Association   Sep 2022–Present
  Organized a Graduate Student Panel where senior Ph.D. students can advise new graduate students in a casual environment & assisted in the organization of other events put on by SGSA
- Data Science Camp Counselor   Aug 2022
  Led interactive sessions on data management and machine learning models to high school students in order to demonstrate the power of statistics and encourage them to attend college to pursue related topics
- Graduate Mentoring Fellow   Jan 2022
  Learned and demonstrated the mentoring competencies of: Maintaining Effective Communication, Aligning Expectations, Assessing Understanding, Addressing Equity and Inclusion, Fostering Independence, Promoting Professional Development, and Articulating my Mentoring Philosophy and Plan

SCHOLARSHIPS & AWARDS

- Lechner Graduate Grant   Aug 2021
- Mathematics Honors Student   Aug 2018–May 2021
- President's Endowed Scholar   Aug 2018–May 2021
- Phi Kappa Phi Inductee   Apr 2021
- University Honors Student   Aug 2018–Jan 2021
- William A. Triche and Homer A. Triche Endowed Scholarship   Aug 2020

- Jack and Nancy Matz Scholarship   May 2020
- Pi Mu Epsilon Inductee   Apr 2020
- Dean's Honor Roll   Jan 2019–Dec 2019
- National Merit Scholar   May 2018