

# John Brown

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Data professional with experience in statistical analysis using R and Python. Proficient in data manipulation, presentations, and problem-solving.

**Programming:** R, Python, SQL

**Software:** AWS

**Certifications:** PCEP – Certified Entry-Level Python Programmer

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## EDUCATION

**Master of Science in Analytics**

May 2024

Institute for Advanced Analytics, NC State University, Raleigh, NC

**Bachelor of Science in Biology, Minor in Chemistry**

August 2020

University of North Carolina at Chapel Hill, Chapel Hill, NC

## PRACTICUM

**The United States Department of Education**

Technical Lead

- Clean and process 300K+ datapoints to minimize memory usage while maintaining usability.
- Implement **K-prototypes** and **KNN** techniques to construct social networks by connecting individuals across 30+ attributes.
- Deliver well-documented and reproducible **Python code** to client, which was used to create new network data for 45 million+ customers.
- Estimate the effect of one's network on 5 long-term student outcomes using **logistic regression**, **extreme gradient boosting**, and **neural networks**.

## EXPERIENCE

**University of North Carolina at Chapel Hill School of Medicine**

Chapel Hill, NC

Research Technician - Journey

August 2020—January 2023

Designed and executed experiments and communicated results. Collaborated with lab members and UNC faculty members, kept meticulous documentation, stayed informed about relevant research, created presentations and posters, wrote manuscripts, and conducted statistical analyses.

- Designed bioinformatic experiments and processed **high-dimensional data** using UNC's **Linux-based computing cluster**.
- Conducted advanced statistical analysis using **generalized linear models** in **R**, processing **800 million+ data points**. This work is highlighted in the paper:
  - [Lysine 36 of Drosophila histone H3.3 supports adult longevity](#)
- Authored 3 publications and delivered 5 conference presentations, effectively communicating research findings to diverse audiences. Notable poster presentations include:
  - Symposium on RNA Biology XIV – NC Biotechnology Center
  - Genome Organization & Nuclear Function conference – Cold Spring Harbor, NY

**Colorado State University**

Fort Collins, CO

Research Fellow

June 2019—August 2019

National Science Foundation (NSF) sponsored research internship. Conducted research on the regulatory role of long noncoding RNAs in pluripotency (stem cells).

- Wrote a detailed research report and created a scientific poster to present at a CSU conference.
  - Won the People's Choice award for the best poster.
- Employed cell culture, protein analysis, and molecular cloning to investigate research questions.
- Validated discoveries using two-sample t-tests.