# **Henry Williams**

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Interdisciplinary data scientist, problem-solver, and communicator dedicated to optimal and ethical decision-making. Equally happy wrangling data, leveraging statistics and machine learning to uncover insights that reliably deliver real value, and sharing those insights with technical and nontechnical audiences alike.

Languages and Software: R, Python, SQL, Tableau, AWS, ArcGIS, Excel, Linux, Git.

**Certifications:** PCEP — Python Certified Entry-Level Programmer. Preparing for AWS Certified Cloud Practitioner.

# **EDUCATION**

M.S. in Analytics May 2024

Institute for Advanced Analytics, North Carolina State University

## B.S. in Statistics, B.A. in Philosophy

May 2021

University of North Carolina at Chapel Hill

# **PROJECTS**

#### M.S. PRACTICUM PROJECT, ATRIUM HEALTH

August 2023 — Current

## **Communication Lead**

- Predicting ICU readmissions by building logistic regression and machine learning models in Python.
- Transforming and posturing complex datasets of electronic health records from over 25,000 patients for explanatory and predictive modeling.
- Developing a Tableau dashboard to aid clinicians in real-time patient evaluations.

### PERSONAL PROJECT, JOURNAL DIGITIZATION

February 2024 — Current

- Fine-tuning a Transformer-based AI model to enable OCR of years of hand-written journal entries.
- Prepared a complex dataset for modeling by automating pre-processing of 15,000 lines of text using Python.

#### **WORK EXPERIENCE**

#### **U.S. ENVIRONMENTAL PROTECTION AGENCY**

Research Triangle Park, NC

# **Toxicology Data Curator (Contract)**

May 2022 — May 2023

- Expanded public-facing toxicology records database by over 25% (65,000+ records) through a mixture of Python scripting and web crawling, manual cataloging, and collaboration with the EPA Libraries.
- Extracted, transformed, and loaded all catalogued data using R and SQL to clean and pre-process.
- Developed and maintained cloud storage API connectivity functions for an internal Python package with 20+ users that have since been used to migrate terabytes of data.

#### **VOLUNTEER EXPERIENCE**

# **UNC STATISTICAL CONSULTING CENTER**

Chapel Hill, NC

#### **Statistical Consultant**

January 2022 — May 2022

- Fielded and discussed project proposals from a diverse set of clients across the university to assess project scope, feasibility, and initial approaches.
- Built a data cleaning pipeline in R to extract, transform, and load over 11,000 survey responses for future analysis while maintaining dialogue with our collaborators to ensure our process fit their goals.