

Holiness Tracy Kerandi

Bucknell University, PA
email — GitHub — LinkedIn

Data-focused systems thinker with experience analyzing complex, real-world datasets to surface bias, support equitable decision-making, and design accountable data workflows. My work focuses on people historically excluded from technical systems, treating care, context, and ethics as core engineering constraints rather than afterthoughts.

Technical Toolkit

Languages: Python, Java, JavaScript, C

Data & Analysis: Pandas, NumPy, Jupyter, Matplotlib, SQL

Systems & Platforms: React, JavaFX, Git, APIs

Data Engineering, Analysis & Research

Carceral Algorithms & Bias Analysis

Python, Pandas, Jupyter

- Analyzed 10,000+ misconduct records from the Pennsylvania Department of Corrections to quantify racial disparities in punishment outcomes.
- Designed reproducible analysis workflows and dashboards to surface bias patterns that affect parole and discipline decisions.
- Presented findings at the Susquehanna River Valley Undergraduate Research Symposium.

International Student Orientation — Workflow Optimization

Python, Pandas

- Modeled and cleaned on-boarding workflow data spanning 90+ students across 50+ countries.
- Reduced manual planning time by approximately 40% while improving equity in task distribution among staff.

Cultural Diffusion in Global Music Trends (Data Challenge Hackathon — 1st Place)

Python, Pandas, Matplotlib

- Built data pipelines analyzing 50 years of Billboard Hot 100 data to examine globalization in romantic music.
- Developed visualizations that reflected the emotive nature of the 1950s - 1990s in North America

Griot Institute — African Girlhoods & Black History Timeline

Qualitative Data, Archival Structuring

- Structured interview transcripts, surveys, and archival materials into analyzable datasets.
- Identified recurring themes in Black engineering student experiences to support inclusive institutional research.
- Curated and expanded a public-facing Black History timeline to improve accessibility and historical clarity.

Digital Research Fellow — Addressing Slavery & Colonialism

Archival Data, XR Concepting

- Organized historical datasets documenting Scotland's links to slavery in a digital archive.
- Proposed an AR extension (Babylon.js) to deepen contextual engagement with historical narratives.

Education

Bucknell University, Lewisburg, PA

Expected Jan 2027

B.S. in Computer Science & Engineering

Relevant Coursework: Data Structures & Algorithms, Computer Systems, Software Engineering & Design, Research Methods