

Roy Cannedy

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CAREER PROFILE

Data Science major with hands-on experience in machine learning, Bayesian networks, algorithm design, and statistical programming. Skilled in Python, R, C++, and SQL with strong experience using Git, GitHub, and reproducible development workflows. Experienced in building custom statistical models, supporting open-source package development, and delivering technical results to academic and non-technical audiences.

Proven ability to collaborate with cross-functional teams, mentor peers, and manage full project lifecycles from ideation to deployment

Programming: Python, R, C++, SQL, HTML

Tools/Frameworks: Git, GitHub, bnlearn (open-source), Tidyverse, NumPy, pandas, scikit-learn, RMarkdown, Jupyter,

Machine Learning: Model selection, supervised learning, neural networks, Bayesian networks

EDUCATION

BAYLOR UNIVERSITY- Waco, TX

May 2027

Bachelor of Science in Data Science

- GPA: 3.66
- Minor: Business
- **Relevant Coursework:** Probability and Statistics, Data Structures, Linear Algebra, Database, algorithms & data structures, Machine Learning, Visualization, Cloud Computing

EXPERIENCE.

BAYLOR UNIVERSITY, UNDERGRADUATE RESEARCHER – Waco, TX

June 2025 - Present

- Conducting URSA-funded research on statistical model selection and algorithm development for Bayesian Networks.
- Developing custom R and Python functions implementing beta-divergence scoring for integration into the open-source bnlearn framework.
- Contributing to an open-source R package in preparation for CRAN submission, including documentation, testing, and reproducible code workflows.
- Using Git/GitHub for version control, branches, pull requests, and collaborative development.

VERTICAL PRODUCTION TEAM LEAD- Waco , TX

January 2025 - Present

- Leading production logistics for Baylor's largest weekly ministry (500+ attendees).
- Managing and training a team of 10 volunteers in audio, video, and stage operations.
- Coordinating technical workflows using planning tools such as shared Google Docs, run-of-show documents, and equipment checklists.
- Providing hands-on mentorship and fostering a collaborative team environment for live events.

HARRIS CREEK CHURCH SOUND ENGINEER INTERN– Waco, TX

January 2025 - Present

- Engineering live audio for college, youth, and young adult ministries using digital sound boards.
- Collaborating with staff and volunteers to deliver high-quality audio mixes in dynamic settings.

PROJECT

BETA DIVERGENCE MODEL SELECTION RESEARCH – Waco, TX

June 2025 - Present

- Investigating beta-divergence as an alternative scoring metric for Bayesian Networks and Chain Event Graphs.
- **Building custom statistical algorithms in R and Python**, integrated with the open-source bnlearn toolkit.
- Running large-scale simulation sweeps across β values to evaluate structural sensitivity and robustness in healthcare and radicalization datasets.
- Producing clear data visualizations using ggplot2 and Python libraries to present findings to faculty.
- Documenting reproducible workflows using GitHub, RMarkdown, and pipeline-style scripts.