

Mason Zoellner

Education:

Virginia Tech College of Engineering

Bachelor of Science in Computer Science, Data-Centric Computing Major

- Honors College | Multiple Dean's List Recognitions

Blacksburg, VA

Expected May 2026

Research & Technical Experience:

Virginia Tech Center for Biostatistics and Health Data Science

Undergraduate Research Assistant

Blacksburg, VA

May 2025 - Present

- Designed and implemented a Python-based pipeline to match 400+ academic publications to external citation sources with 85%+ accuracy, adding Altmetric and Google Scholar metrics to support an academic dossier.
- Extracted and matched mentee names and roles to author names from detailed dataset, then automated CV annotation in Python to highlight contribution distinctions, enhancing the academic dossier's impact.
- Developed reusable R scripts for data cleaning, manipulation, and visualization of adverse event reporting odds ratios across multiple drugs using dplyr and ggplot2, producing publication-quality forest plots for analysis.
- Support website updates for CBHDS, maintaining accurate project, CV, and publication information.
- Featured for data science work automating academic dossier preparation at Virginia Tech's CBHDS ([Read here](#))
- Authored featured research story on CBHDS researcher for VT's Center for Communicating Science ([Read here](#))

Naval Surface Warfare Center, Electromagnetic & Sensor Systems Department

Intern – Student Trainee Software Engineer

Dahlgren, VA

June 2024 - March 2025

- Supported defense software engineering in a classified setting; specific responsibilities classified.

Hume Center for National Security and Technology at Virginia Tech

Intern – Undergraduate Research Assistant

Blacksburg, VA

May 2023 - May 2024

- Contributed to AI/ML project on automatic target recognition using YOLOv8 for large dataset processing.
- Developed a model achieving 0.98 F1 score on a controlled test set for high-accuracy detection.
- Applied and refined Kalman filter for target tracking and developed statistical models to predict asset behavior.
- Presented Maritime Automatic Target Recognition at multiple technical events with audiences of 100+ attendees, including the 2024 DATAWorks Conference, NEEC Student Day, and Hume Center/IC CAE Colloquium.
- Co-authored Double Take: An Approach to Multi-Sensor Fusion with YOLO, published under Award No.: N00178-24-1-0001 (April 2024).
- Research featured at Naval Surface Warfare Center Dahlgren Proving Ground demonstration event ([Read here](#))

Virginia Tech Transportation Institute

Data Reductionist

Blacksburg, VA

May 2023 - August 2023

- Documented driver behavior from video and parametric data to support transportation safety research.
- Ensured high standards of data integrity and confidentiality while working with sensitive human subjects data.
- Utilized proprietary software under strict research protocols to accurately label and analyze driving conditions.

Leadership & Service:

Beta Upsilon Chi (Brothers Under Christ) Fraternity

Vice President

Blacksburg, VA

January 2025 - Present

- Lead social identity and outreach, promoting Christian brotherhood across campus.
- Oversee event planning, chair delegation, and chapter operations; mentor leadership team.
- Plan and execute large-scale events (200+ participants), including Formals, Open Parties, Tailgates, and Retreats.

Community Service Chair, Tailgate Chair, Pledge Class President

September 2023 - December 2024

The Vine Church

Summer Intern

Blacksburg, VA

May 2025 - August 2025

- Engage in ministry training, discipleship, and leadership while supporting Sunday services and outreach events.

Certifications:

- **IBM Data Science Professional Certificate** – mastered essential data science tools including Python, SQL, data cleaning, visualization, and machine learning through real-world projects. (completed August 2025)