COLE LE MAHIEU

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EDUCATION

Doctor of Philosophy in Experimental Nuclear Physics
University of Kansas (expected graduation December 2025) Lawrence, KS
- GPA 3.91

Bachelor of Science in Physics and Mathematics
Union University (December 2018) Jackson, TN
- GPA 3.87
- 2018 Recipient Academic Excellence Medal for a Major in Physics
- 2018 Recipient Academic Excellence Medal for a Major in Mathematics

TECHNICAL SKILLS

- C++
- Python
- Linux
- Bash
- Git
- JavaScript
- HTML

RESEARCH

Graduate Research Assistant
University of Kansas (Spring 2022 - Present) Lawrence, KS
- Dissertation research: Analysis of heavy ion collisions from the Large Hadron Collider's CMS detector using C++ and Python scripts to filter, visualize, and fit the data
- Communication and teamwork skills developed through involvement in international collaborations at CERN
- Service Work: Collaborated on a team to develop a novel method for determining luminosity (measurement of detector performance) in the CMS detector

European Council for Nuclear Research (CERN)
On-site at CERN (Fall 2022) Geneva, Switzerland
- Assisted in nightly shifts to monitor the operation of the CMS detector
- Tested and debugged the data acquisition system for the CMS detector's zero-degree calorimeter at the Large Hadron Collider using C++ and bash scripts

Research Experience for Undergraduates (REU) program
University of Oklahoma (Summer 2018) Norman, Oklahoma
- Performed research in experimental high energy physics, specifically the development of stress testing procedures for pixel detector modules of the ATLAS detector at the Large Hadron Collider

TEACHING

Graduate Teaching Assistant
University of Kansas Lawrence, KS
- *PHSX 616: Physical Measurements*, Spring 2023-Spring 2024, Spring 2025
  - Instructed students in Python fitting to increase proficiency in data visualization and interpretation
  - Helped students develop problem solving and critical thinking skills through experimentation and paper writing
- *PHSX 116: Introductory Physics Laboratory,* Fall 2019-Spring 2020
  - Taught students the scientific method and error analysis through Socratic dialogue and propagation of uncertainty