Andrew Cooper

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EDUCATION

Virginia Tech, Blacksburg, VA — October 2025
- GPA: 3.9
- Relevant Coursework: Predictability and Non-Linearity, Spatial Statistics, Measure Theory

PhD in Statistical Science

Duke University, Durham, NC — May 2020

Master's in Statistical Science
- GPA: 3.82
- Relevant Coursework: Predictive Modeling, Statistical Programming in R, Decision Theory, Statistical Computation in Python, Machine Learning, Deep Learning, High Dimensional Data Analysis, Real Analysis, Computer Vision

Duke University, Durham, NC — May 2018

Bachelor of Science in Statistical Science, Bachelor of Science in Computer Science
- Relevant Coursework: Modeling in Economic and Social Sciences, Regression Analysis, Probability, Classical and Bayesian Inference, Social Networks, Discrete Math, Computer Architecture, Operating Systems, Algorithms, Databases

WORK AND LEADERSHIP EXPERIENCE

Los Alamos National Laboratory, Los Alamos, New Mexico — Summer 2024-Present
- Computational and Computer Sciences division
  - Conducted experiments exploring Radio Frequency Identification (RFID) behavior in lab environments.
  - Developed novel approach to RFID tag localization for the purpose of expediting lab operations.
  - Implemented software for general-purpose angular modeling (currently submitted for public release).

NASA Langley Research Center, Hampton, Virginia — Summer 2023
- Dynamic Systems and Control, Intelligent Flight Systems division
  - Developed methods for finding robust optimal designs with large-scale simulation experiments.
  - Applied methods to aeroelastic wing simulator for finding robust optimal wing designs.
  - Submitted paper proposal of work to AIAA Aviation Forum.

Aerospace Corporation, El Segundo, California — Summer - Spring 2022
- Reliability and Statistics, Systems Engineering division
  - Estimated reliability and predicted expected lifetimes of military and commercial satellites.
  - Developed tools for fitting and quantifying uncertainty in neural network models.
  - Collaborated with engineers on interdepartmental projects for assessing mission-related risks.

Mu Sigma Rho, Blacksburg, Virginia — Fall 2023 - Spring 2025
- Vice president of Virginia Tech chapter
  - Organized events for graduate students in the Statistics department.
  - Led review sessions for first-year graduate students to prepare them for department qualifying exams.
  - Invited and arranged members of the statistics community to visit and speak at the department.

PUBLICATIONS AND AWARDS

- Cooper, Andrew, Annie S. Booth, Robert B. Gramacy. 2025. "Modernizing Full Posterior Inference for Surrogate Modeling of Categorical-Output Simulation Experiments." *Preprint*.
- Booth, Annie S., Andrew Cooper, Robert B. Gramacy. 2023. "Non-Stationary Gaussian Process Surrogates." *Preprint*.
- Booth, Annie S., Andrew Cooper, Robert B. Gramacy. 2023. "Vecchia-Approximated Deep Gaussian Processes for Computer Experiments." Journal of Computational and Graphical Statistics 32 (3): 824–37.
- Jean Gibbon's STAR Award, Virginia Tech Department of Statistics, 2023

SKILLS AND INTERESTS

Computer Languages
- R, Python, SAS, MATLAB, STATA, and JMP statistical software programs, used for both class projects and research.
- Java, C, C++, Javascript, and PHP computer programming languages.

Languages
- Spanish (moderate proficiency)