

# Sara Cloft

She/Her pronouns | csara18@vt.edu  
[https://www.researchgate.net/profile/Sara\\_Cloft](https://www.researchgate.net/profile/Sara_Cloft)  
3583 Litton-Reaves Hall  
175 West Campus Drive, Blacksburg, VA 24061

## Education

### Doctor of Philosophy, Animal and Poultry Sciences

Virginia Tech; Blacksburg, VA

Expected Graduation: December 2021

### Graduate Certificate, Future Professoriate

Virginia Tech; Blacksburg, VA

May 2020

### Masters of Science, Poultry Science

Auburn University; Auburn, AL

December 2018

*The impact of increasing dietary amino acid density and feed allocation during the first three weeks of life for broilers vaccinated against coccidiosis*

### Bachelor of Science, Animal Science

Michigan State University; East Lansing, MI

December 2016

### Certificate, Poultry Science

University of Wisconsin-Madison; Madison, WI  
Midwest Poultry Consortium, Center of Excellence

June 2016

## Research Experience

### Graduate Research Assistant

Dr. Eric Wong, Department of Animal and Poultry Sciences, Virginia Tech

Jan. 2019- Present

- Executed contract research projects and managed proprietary data
- Drafted research summaries for interested parties.
- Authored and reviewed multiple scholarly publications for peer-review journals.
- Supervised undergraduate students while collecting data and conducting laboratory assays.
- Collaborated with national (University of Georgia Poultry Diagnostic and Research Center), international (The Hebrew University of Jerusalem), governmental (USDA-ARS) research groups.
- Presented research at departmental, university and national research meetings.

### Graduate Research Assistant

Dr. William Dozier III, Department of Poultry Science, Auburn University

Jan. 2017- Dec. 2018

- Established research protocols and facilitated their applications and integration with existing programs based on a research question
- Managed multiple research trials involving daily bird care in floor pens and battery cages, necropsies, sample collection and analysis, processing and deboning
- Conducted statistical analysis on collected data
- Documented laboratory procedures into comprehensive Standard Operating Procedures
- Formulated and mixed experimental and common broiler diets using formulation software and the feed mill at the Auburn University Poultry and Animal Nutritional Center
- Compiled research results into comprehensive reports, presentations, and publications
- Coordinated multiple undergraduate students to complete lab work and to prepare them to give research presentations

### Undergraduate Research Assistant

Laying Hen Research Laboratory, Michigan State University, East Lansing, MI

Sep. 2015- Dec. 2016

- Partnered with the farm care team to organize the management of 6 research projects with over 5,000 hens

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- Examined welfare quality for over 1,000 hens following the Welfare Quality® Assessment method
- Compiled fecal and egg samples from hens for microbiological sampling, egg quality, and case weight assessment
- Audited feed consumption over 3 day trials for over 2,000 hens each month
- Organized independent research testing mineral composition of tibia bones after autoclaving

## Hatchery Intern

Maple Leaf Farms, Leesburg, IN

July 2015- August 2015 & July 2016- August 2016

- Monitored 60 machines daily collecting CO<sub>2</sub> reading, temperature, and relative humidity information and troubleshooted machine alarms and adjusted machines to maintain consistency with hatchery incubation profiles
- Participated in the candling and transfer of research eggs following specific tagging and tracking protocols
- Augmented fertility information through break outs at candling to identify real fertility values and track weekly egg weights
- Compiled and presented research results to department leads and company executives based on completed projects
  - Investigated the effects of low turning angles on multistage incubation
  - Established an evaluating system for comparing multiple flocks and their eggs
  - Tracked flocks of grow-out ducks looking for leg development problems based on different hatchery handling protocols

## Publications

### Journal Articles

- Reynolds, K., Cloft, S.E., and E.A. Wong. 2020. Changes with age in density of goblet cells in the small intestine of broiler chicks. *Poult. Sci.* 99 (5): 2342-2348.
- Cloft, S.E., S. Rochell, K. Macklin, and W. Dozier III. 2019. Effects of pre-starter diets varying in amino acid density given to broilers that received coccidiosis vaccination at hatch. *Poult. Sci.* 98(10): 4878-4888.
- Cloft, S.E., S. Rochell, K. Macklin, and W. Dozier III. 2019. Effects of dietary amino acid density and feed allocation during the starter period on 41 d growth performance and processing characteristics of broiler chickens given coccidiosis vaccination at hatch. *Poult. Sci.* 98(10): 5005-5016.
- Cloft, S.E., C. Robinson, and D. Karcher. 2018. Calcium and phosphorus loss from bones autoclaved for tissue removal. *Poult. Sci.* 97(9): 3295-3297.

### Abstracts

- Cloft, S., S. Rochell, K. Macklin, and W. Dozier III. Effects of pre-starter diets varying in amino acid density given to broilers that received coccidiosis vaccination at hatch. *Poult. Sci.* 97(E-Suppl. 1): 53-54. (Abstr.)
- Cloft, S., S. Rochell, K. Macklin, and W. Dozier III. Effects of dietary amino acid density and feed allocation during the starter period on 41 d growth performance and processing characteristics of broiler chickens given coccidiosis vaccination at hatch. *Poult. Sci.* 97(E-Suppl. 1): 281. (Abstr.)
- Cloft, S., C. Robison, and D. Karcher. 2017. Calcium and phosphorus loss from bones autoclaved for tissue removal. *Poult. Sci.* 96(E-Suppl. 1):67. (Abstr.)

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## Presentations

### National Meetings

- **Cloft, S.**, S. Rochell, K. Macklin, and W. Dozier III. Effects of pre-starter diets varying in amino acid density given to broilers that received coccidiosis vaccination at hatch. Poultry Science Association Annual Meeting. July 2018.
- **Cloft, S.**, S. Rochell, K. Macklin, and W. Dozier III. Effects of dietary amino acid density and feed allocation during the starter period on 41 d growth performance and processing characteristics of broiler chickens given coccidiosis vaccination at hatch. International Poultry Scientific Forum. January 2018.
- **Cloft, S.**, C. Robison, and D. Karcher. Calcium and phosphorus loss from bones autoclaved for tissue removal. Poultry Science Association Annual Meeting. July 2017.

### University and Departmental Meetings

- **Cloft, S.** A longitudinal investigation of *Eimeria acervulina* infection in broiler chickens- An Update. Virginia Tech Poultry Research Group Seminar. February 2020.
- **Cloft, S.** A timeseries investigation of *Eimeria acervulina* infection in broiler chickens. Virginia Tech Poultry Research Group Seminar. October 2019.
- **Cloft, S.** The impact of increasing dietary amino acid density and feed allocation during the first three weeks of life for broilers vaccinated against coccidiosis. Auburn University Poultry Science Departmental Seminar. October 2018.
- **Cloft, S.**, S. Rochell, K. Macklin, and W. Dozier III. Evaluation of various pre-starter dietary amino acid density feeding programs for broilers vaccinated against coccidiosis. Auburn University College of Agriculture fall graduate student research poster showcase. October 2018.
- **Cloft, S.**, S. Rochell, K. Macklin, and W. Dozier III. Improving performance of broilers receiving coccidiosis vaccination through increasing dietary amino acid density and starter period duration. Auburn University This is Research Student Research Symposium. March 2018.
- **Cloft, S.**, The importance of dietary amino acid density in the starter period for broilers vaccinated against coccidiosis at hatch. Auburn University Poultry Science Departmental Seminar. March 2018.

## Teaching Experience

### Graduate Teaching Scholar

College of Agriculture and Life Sciences, Virginia Tech

Aug. 2019- Present

- Paired with APSC 1464 Introduction to Animal and Poultry Sciences Laboratory course.
- Prepared and facilitated laboratory sessions for multiple species across consecutive class sections.
- Designed a research project on the effectiveness of the laboratory class within the new goals of the departmental curriculum, as well as evaluating the course against comparable courses across the United States.
- Participated in seminar courses discussing topics such as pedagogy, learning theories, and higher order thinking.

### Graduate Teaching Assistant

Dr. Cynthia Wood, Department of Animal and Poultry Science, Virginia Tech

Aug. 2019- Dec. 2019

- Assisted with the Introduction to Animal and Poultry Sciences Laboratory course for new and transfer students
- Prepared laboratory lessons covering basic handling of equine, swine, beef and dairy cattle, poultry, and companion animals, as well as introducing core concepts of animal science such as nutrition, reproduction, and meat processing.

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- Wrote and graded weekly quizzes covering reading comprehension and learning goals from the previous laboratory
- Managed multiple sections of the course averaging 25 students and 2 undergraduate teaching assistants
- Coordinated laboratory lessons with guest lecturers and transportation across Virginia Tech animal facilities
- Delivered lectures on various topics throughout the semester such as gastrointestinal anatomy, pet food labeling, internal anatomy of the chicken, avian reproduction

## **Graduate Teaching Assistant**

Dr. William Dozier III, Department of Poultry Science, Auburn University Aug. 2018- Dec. 2018

- Assisted with the senior and graduate Poultry Feeding course
- Administrative course management including scheduling, and updating the course website
- Responsible for grading and providing feedback on student examinations
- Compiled student assessments and created a semester report for university assessment purposes
- Created rubrics for the purpose of grading critical thinking questions on examinations

## **Graduate Teaching Assistant**

Dr. Ruediger Hauck, Department of Poultry Science, Auburn University January 2018- May 2018

- Assisted with the senior and graduate Poultry Health course
- Set up necropsy laboratories that complemented in class lecture and introduced students to characteristic poultry diseases: Coccidiosis and E. coli
- Administrative course management including responsibilities such as grading and updating the course website
- Proctored online exams through Canvas using Lockdown Browser
- Moderated review sessions for students
- Reviewed papers & presentations to provide comments for future revisions

## **Undergraduate Teaching Assistant**

Dr. Mike VandeHaar, Department of Animal Science, Michigan State University Aug. 2016- Dec. 2016

- Assisted with Animal Feeding & Nutrition course
- Lectured on topics such as energetics, diet formulation, gastrointestinal physiology, digestive processes, and feed ingredients during laboratory sessions
- Mentored groups with the class broiler project on diet formulation strategies and the preparation of the mash diets using a hand mixer and provided feed ingredients

## **Resident Assistant**

Michigan State University Residence Education and Housing Services August 2014- May 2016

- Envisioned and produced over 25 events each semester for up to 400 residents
- Supervised the safety and security of the building and intervened in incidents during duty shifts sometimes involving interaction with police and emergency medical services to assist residents
- Mediated heated conflicts between parties of different views in sensitive situations
- Interviewed candidates using STAR and Likert techniques for residence hall positions

## **Presentations**

- Classroom Ethics for the GTA workshop (GRAD 5004) Fall 2019; Spring 2020

## **Service Experience**

### **Associate Chair**

Graduate Honor System, Virginia Tech Graduate School

May 2019- Present

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- Trained and recruited panelists to serve on GHS panels.
- Interviewed referred students and referrers to compile case reports and summaries
- Chaired preliminary review panels tasked with evaluating evidence and deciding if a review panel hearing is warranted.
- Served as Investigator for the DVM Honor Board; Member on 2020 GHS constitutional review committee
- Presented GHS overviews and honor code summaries to departmental orientations.
- Guest lecturer for the GTA workshop (GRAD 5004) phase II Classroom Ethics

## Graduate Student Panelist

Graduate Honor System, Virginia Tech Graduate School January 2019- May 2019

- Served on panels reviewing allegations of individual academic integrity violations
- Trained on conflict of interest and in specifics of the GHS constitution

## Poultry Science Senator

Auburn University Graduate Student Council May 2017- July 2018

- Reviewed and Selected applicants for the Strum Fellowship and the Graduate Student Council Travel Fellowship
- Reviewed and updated Graduate Student Council Constitution
- Elected by peers to represent the interests of the poultry science graduate students on the Graduate Student Council Senate and Rules committee
- Organized the annual new student lunch to introduce new graduate students to the Poultry Science Department

## Undergraduate Representative

Animal Science Undergraduate Student Affairs and Curriculum Committee, Department of Animal Science, Michigan State University October 2015- December 2016

- Served with faculty members and graduate students of the animal science department
- Reviewed course creation and modification forms onto the College of Agriculture and Natural Resources curriculum committee for review
- Revised the department curriculum in accordance with new Student Learning Outcomes passed by Michigan State University
- Implemented department wide assessment practices designed to track student progressions through desired Student Learning Outcomes

## Honors and Awards

- Alltech Student Research Manuscript Award. January 2020 for *Effects of dietary amino acid density and feed allocation during the starter period on 41 d growth performance and processing characteristics of broiler chickens given coccidiosis vaccination at hatch.*
- JAR Graduate Student Travel Grant Award, Virginia Tech Animal and Poultry Sciences Department. July 2019.
- Spring 2018 Novus seminar award, Auburn University Department of Poultry Science
- First place M.S. poster in the efficient food animal systems and integrated food and health systems, Auburn University College of Agriculture fall graduate student research poster showcase. October 2018.
- Certificate of Appreciation, Auburn Graduate Student Council. April 2018
- Travel Grant Award, International Poultry Scientific Forum. January 2018
- Certificate of Excellence, International Poultry Scientific Forum. January 2018
- Center of Excellence scholarship recipient, Midwest Poultry Consortium. 2015 & 2016

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- 2016 Reach Teach Learn scholarship recipient, Zoetis Poultry

## **Affiliations**

- **Member**, Virginia Tech Graduate Teaching Assistant Academy of Excellence
- **Graduate Student Member**, Poultry Science Association & Poultry Science Association Hatchery; Member since 2016.
- **Alumnus**, of Midwest Poultry Consortium Center of Excellence program

## **Skills and Certifications**

- HACCP certification from the International HACCP Alliance through Michigan State University
- Skilled in the use of R-studio, SAS, and JMP software for statistical analysis
- Experience with feed formulation software Brill Formulation<sup>®</sup> and Concept4<sup>®</sup>
- RNAscope<sup>®</sup> In situ hybridization procedure by Advanced Cell Diagnostics
- Proficient in the use of:
  - SoftMax Pro software for SpectraMax Plus384 spectrophotometer by Molecular Devices
  - Rapid N cube by Elementar
  - 7500-FAST qPCR software by Applied Biosystems