

Kate Paff

Education

2023-2027: Virginia Tech, Blacksburg, Virginia, Animal and Poultry Sciences Major, GPA: 3.82

2019–2023: Howell High School, Farmingdale, New Jersey, High School Diploma.

Relevant Coursework

- ENGL 1105/06 (First-Year Writing)
- APSC 1454 (Intro to Animal and Poultry Science)
- APSC 1464 (Animal and Poultry Science Lab)
- APSC 1984 (Equine Practicum)
- BIOL 1105/06 (Principles of Biology)
- BIOL 1115/16 (Principles of Biology Lab)
- APSC 2424 (Introduction to Equine Industry)
- ALS 2304 (Animal Physiology and Anatomy)
- CHEM 1035 (General Chemistry I)
- CHEM 1045 (General Chemistry I Lab)
- STAT 2004 (Introductory Statistics)
- CHEM 1036 (General Chemistry II)
- CHEM 1046 (General Chemistry II Lab)
- ALS 3104 (Animal Breeding and Genetics)
- CHEM 2535 (Organic Chemistry I)
- CHEM 2545 (Organic Chemistry I Lab)
- ALS 2304 (Animal Nutrition and Feeding)
- BIOL 2604 (General Microbiology)
- BIOL 3774 (Molecular Biology)

Research Experience

Virginia Tech School of Animal Sciences, Undergraduate Research Assistant,

October 2025-Present

- Research in Dr. Rodrigo Marques' beef cattle fetal nutrition monitoring lab, studying the impact of chromium on stress and thus performance from weaning to market weight by simulating feedlot hauling practices.
- Responsibilities include assisting with preparing daily TMR, measuring cortisol levels from tail hair samples and haptoglobin levels from blood samples, moving cattle through chute, weighing and recording refusals, and using Data Ranger to administer feed to the control and treatment groups.

Virginia Tech School of Animal Sciences, Blacksburg, Virginia, Undergraduate Research Assistant

August 2025-September 2025

- Aiding research in Dr. Robin White's ruminant nutrition lab by working with cattle, training them to use Calan gates, inserting sensors into fistulas, sampling rumen contents, weighing and recording refusals, and feeding.

Virginia Tech School of Animal Sciences, Blacksburg, Virginia, *Undergraduate Research Assistant*,

January 2025 – Present

- Lab that focuses on signal transduction pathways and taste systems in transgenic mice.
- Conducting research in Dr. Kathryn Medler's neurophysiology lab, developing lab skills in PCR, gel electrophoresis, immunohistochemistry, tissue collection, and live cell imaging to investigate how

taste signals in the tongue function.

Virginia Tech School of Animal Sciences, Blacksburg, Virginia, *Undergraduate Research Assistant*,
August 2024 – Present

- Conducting research in Dr. James Chen's data science lab, utilizing image annotation tools to develop a comprehensive horse-rider model that will serve as a supplemental tool for judges.
- Currently working towards publishing a paper.

Veterinary Experience

Bluegrass Equine Surgery, Kentucky, *Extern*, July 13-26, 2025

- Observed and assisted equine veterinarians with field calls and surgeries while networking with the Lexington Equine community.
- **Hours:** 96

Oakridge Equine Hospital, Edmond, Oklahoma, *Extern*, June 23-July 5, 2025

- Responsibilities included conducting Colic/Foal Vitals, TPRs, drawing blood and running blood work, administering oral/IV/IC/ophthalmic medication, aiding with supportive care, restraining animals, and assisting with emergencies/on-call/surgical treatments.
- **Hours:** 157.7

New England Equine Medical and Surgical Center, Dover, New Hampshire, *Extern*,
May 19- June 16, 2025

- Responsibilities in the Surgery, Hospital, Outpatient, and Ambulatory departments included conducting ICU and visual checks, running blood work, administering medication, restraining animals, and assisting with emergencies and surgical treatments.
- **Hours:** 247

Work Experience

Diet Forge, Remote, *Intern*, January 2026 – Present

- Support real-world diet formulation and product improvement using DietForge.ai in a remote startup setting.
- Gaining hands-on experience with modern nutrition software and formulation workflows across multiple livestock species.
- Contributing to feature refinement and product feedback for a tech platform serving animal nutritionists.

Hardy Farm, Farmington, Maine, *Intern*, May 2024 – July 2024

- Ayrshire and Holstein Organic Dairy Farm.
- Was responsible for daily chores: milking cows/heifers, moving calves/cows/heifers, feeding animals, doing wellness checks, administering medicine, treating wounds, and other jobs as needed.
- Aided with haying, calving, and breeding processes.

Sundaes The Ice Cream Place, Manasquan, New Jersey, *Shift Leader*, June 2022 – Present

- Ensure maximum customer satisfaction by completing various tasks to keep the store and coworkers running effectively and efficiently.
- Employ leadership skills and time management to direct coworkers and train new employees while maintaining service quality.
- Promoted to Shift Leader, March 2023.

Chariot Riders Inc., Manchester, New Jersey, *Lead Summer Camp Counselor*, June 2021 – August 2022

- Non-profit therapeutic horseback riding facility for children, adults, and non-disabled students.
- Instructed 6-15-year-olds how to ride and groom/tack horses, barn safety, and to complete daily responsibilities.
- Organized and planned daily camp activities for large groups of children while ensuring safety.

Volunteering

Virginia Tech Copenhaver Sheep Center, Blacksburg, Virginia, *Shift Leader*, January 2024- Present

- The role includes ensuring all sheep are accounted for, processing lambs, completing daily barn chores, and conducting night checks of lactating and pregnant ewes and any other sheep in the barn, alongside veterinary students.
- Promoted to Shift Leader August 2025.

Virginia Tech Equine Barns, Blacksburg, Virginia, *Shift Leader*, August 2023- May 2024

- Was responsible for various barn chores that included, but were not limited to, feeding the horses, mucking stalls, and conducting health assessments.
- Led and taught fellow volunteers how to complete routine barn duties and safely interact with horses.
- Promoted to Shift Leader, January 2024.

Chariot Riders Inc., Manchester, New Jersey, *Senior Volunteer*, November 2016 – August 2023

- Non-profit therapeutic horseback riding facility serving children, adults, and individuals with disabilities.
- In charge of leading and aiding non-disabled and therapeutic riding lessons and mentoring younger volunteers.
- Administered medication/supplements to horses as needed and completed daily barn chores.

Liberty Haven Farm, Howell, New Jersey, *Summer Camp Volunteer Counselor*, June– August 2020

- Non-profit sanctuary for rescue animals.
- Fed horses and farm animals.
- Assisted with pony rides at fundraising events.

Extracurriculars

Virginia Tech College of Agriculture and Life Sciences, Week of Welcome Leader August 2025

- Led various breakout groups focused on setting freshmen and transfer students up for success at Virginia Tech through discussions and Q&A sessions.

Virginia Tech School of Animal Sciences, Ambassador; October 2024-Present

- The role includes providing animal facility tours to prospective students, meeting with alumni and community groups, writing cards to prospective and incoming students, and assisting with admissions events/open houses.

Pre-Veterinary Club, Secretary, August 2023-Present

- Fall 2025
 - Responsible for taking meeting notes, updating the steps to the vet school packet, and creating a newsletter each week.
- Hear from Veterinarians from various professions.
- Participate in events to gain a deeper understanding of the veterinary field.

American Collegiate Horsemen's Association, Club Member; August 2023-May 2025

- Completed therapy ice boot sessions.
- Aided in yearling training.
- Conducted foal and mare checks.
- Participated in foal watch.

Virginia Tech Hunter Team, Equestrian, August 2023-May 2024

- Took part in riding lessons three times a week.
- Completed team bonding events and team workouts.

Equestrian Club, Club Member; August 2023-May 2024

- Helped run and staff the Hunter, Dressage, and Western shows.

Best Buddies, Club Member; August-December 2023

- Attended events that provide friendships/companionship for those with intellectual and physical disabilities.

Hunter/Dressage, Equestrian, November 2014-Present

- Participate in private lessons, riding clinics, and camps at numerous Hunter/Dressage discipline barns.

Awards & Honors

Stamps Scholar at Virginia Tech,

- Merit-based full cost-of-attendance national scholarship with programmatic engagement with scholars from three dozen other campuses nationwide (and the United Kingdom).
- One of the ten scholars chosen from among nearly 475,000 applicants for the Stamps Scholarship nationwide, selected based on leadership, academics, and service.

Virginia Tech CALS Dean's Scholar,

Achieved Fall 2024

- Awarded to students who achieve a semesterly 4.0 GPA after their Freshman year.

Virginia Tech Dean's List,

Achieved Fall 2023-Spring 2025

- Awarded to students who achieve a 3.4 GPA in a semester.

International Baccalaureate Diploma Program, Diploma Recipient,

Awarded 2023

Certifications

Virginia Tech Animal Resources and Care Division,

Issued February 2025

- Humane Mice Euthanasia: CO2.
- Human Mice Euthanasia: Cervical Dislocation after CO2 or Anesthesia.
- Humane Mice Euthanasia: Decapitation after CO2 or Anesthesia.
- Mice Handling and Restraint.

Virginia Tech Environmental Health and Safety,

Issued January 2025

- Formaldehyde Safety.
- General Laboratory Safety.
- Laboratory Hazardous Waste.
- Safe Autoclave Use and Verification.

Virginia Tech,

Issued August 2024

- IACUC Training.

Other

Smithfield Foods Meat and Pork Industry Exposure Field Study,

January-March 2024

- Attended industry-related classes.
- Aided Research and Development team in producing pork products.
- Networked with Smithfield Corporate through meetings.
- Received a personal tour of the Tar Heel Plant (the largest pork processing plant in the world).