Taylor Helen Ferebee, PhD

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EDUCATION

Cornell University, College of Agriculture and Life Science — Ithaca, NY
Doctorate in Computational Biology, concentrations in Statistical Genomics & Applied Statistics — *Jul 2019 – Feb 2024*

- **GPA: 4.3/4.3 | Honors: USDA Predoctoral Fellowship ($180,000)**
- **Coursework:** Leadership Assessment for Managers • Statistical Learning Theory

Clemson University, School of Mathematical and Statistical Sciences — Clemson, SC
Master's of Science in Mathematical Sciences — *Aug 2017 – May 2019*

- **GPA: 3.5/4.0 | Honors: USDA National Needs Fellowship, Nomination for Women of Color in Stem Award**
- **Coursework:** Applied Statistical Models • Share Your Research: How to Give a Good Talk • Statistical Inference

Roanoke College, Department of Math, Computer Science, and Physics — Salem, VA
Bachelors of Science in Mathematics and Physics — *Aug 2013 – May 2017*

- **GPA: 3.2/4.0 | Honors: Cover story and feature for Roanoke College Magazine; Hall of Fame, Stat Crew**
- **Coursework:** Python Programming • Ethical Implications for Human Centered Technology • Advanced Statistical Models

PROFESSIONAL EXPERIENCE

Corteva Agriscience — Des Moines, IA
Senior Data Scientist I, R&D — *Apr 2024 – present*

- Designed and implemented deep learning models for gene editing which resulted in delivery of edits to internal and external stakeholders. Led a team of 11 stakeholders, bioinformaticians, data and machine learning engineers to design interactive biological LLM model zoo across 6 applied genome-oriented tasks, which will be used for decision making across the seed organization.
- Delivered over 50 slide decks, spotlight talks, and poster presentations to major gene edited breeding stakeholders, which resulted in target delivery to corporate partners. Presented team research poster at internal R&D conference (200+ attendees).
- Led a cross-disciplinary grassroots effort to increase company awareness and belonging in the greater academic and industrial machine learning and AI community that resulted in sponsorship and attendance to 3 prestigious AI conferences and workshops. Co-facilitating industry-academic partnership with Iowa State University Translational AI Center.

Cornell University — Ithaca, NY
Doctoral Candidate — *Jul 2019 – Feb 2024*

- Led a team that designed and implemented machine learning models for biological processes that resulted in an over 70% accuracy rate, which is a 20% improvement on current models.
- Delivered over 130 slide decks and poster presentations to laboratory members (top 1% most cited group); Presented research at prestigious conferences in US (2,000+ attendees) and the UK (800+ attendees).
- Acquired $180,000 in competitive grant money from USDA fellowship (success rate < 36%) and received a "High Priority" or "Outstanding" rating from ~60% of the stakeholder and researcher grant review panel.

LEADERSHIP EXPERIENCE

The Jacobson Institute at Grand View University
Board Member, NextGen Advisory Board Think Tank

- Seated as the industry AI expert providing insights that will strengthen the JI's strategic thinking and provide 5-10 year outlook on AI development and usage in the Des Moines workforce.

Black Women in Computational Biology Network, 501(c)(3) pending
Vice Director, Founding Member

- Formalized the first set of organizational bylaws and communicated the specifics to the organizational advisory board, which streamlined the application for non-profit status.
- Collaborated with 4 researchers to provide recommendations to the Computational Biology community establishing a global affinity group in science. Disseminated recommendations in a peer-reviewed journal, PLoS Computational Biology with over 1200 views and a 40% article download rate.

SKILLS & PERSONAL

Skills: Python (advanced), AI/ML (advanced), Stakeholder Management (advanced), Public Speaking (advanced)

Certifications/Courses: ISU TrAC Scientific Machine Learning Course

Interests: Podcast trivia (2 appearances on Trivial Warfare), cooking (esp. French pastry), Olympic-style weightlifting, Venture Capital