Colton A. Atkins, PhD | Assistant Professor of Instruction | Agricultural Sciences | Animal Science

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EDUCATION

PhD, Animal Sciences 2018

Colorado State University, Fort Collins, CO

- *PhD Emphasis:* Precision Animal Management (AgTech) Emphasis
- *Dissertation Title:* Investigation of an Embedded-Optical-Base System's Functionality in Detecting Signal Events for Gait Measurements
- *Adviser:* Kevin R. Pond, PhD, Head of Department of Animal Sciences
- *Notable Committee Member:* Temple Grandin, PhD, CSU Department of Animal Science
- *Technical Adviser:* Christi K. Madsen, PhD, TAMU Department of Electrical and Computer Engineering

MS, Agriculture Communications and Journalism 2014

Texas A&M University, College Station, TX

- *MS Emphasis:* Human-Computer Interaction (Graphical User Interface Design)
- *Thesis Title:* Agricultural Resource Intelligent Educational Lecturer
- *Adviser:* Tracy A. Rutherford, PhD
- *Notable Committee Member:* Chris Skaggs, PhD, TAMU College of Agriculture and Life Sciences

BS, Animal Science 2011

Texas A&M University, College Station, TX

- *BS Emphasis*: Livestock Production

BS, Agriculture Communications and Journalism 2011

Texas A&M University, College Station, TX

- *BS Emphasis*: Graphical User Interface Design and Web Development
- *Undergraduate Research Project Title:* Interactive Multimedia for Students in Agriculture Classes
- *Adviser:* Traci L. Naile, PhD

PROFESSIONAL EXPERIENCE

Assistant Professor - Engineering Technology (Agriculture) 2024 - 2026

WTAMU College of Engineering, Canyon, TX

- **60%** Education**, 25-30%** Research**, 10-15%** Outreach
- Advised 12+ Undergraduate Students; Advised COE Graduate and Post Bach Students
- Worked on developing Engineering Technology - Agriculture Technology program (degree track) along with creation of new courses for the program and outreach measures for student recruitment and donor/sponsor investments.
- *Transferred from College of Agriculture and Natural Sciences to College of Engineering*

Assistant Professor - Agriculture Technology 2021 - 2024

WTAMU Department of Agriculture, Canyon, TX

- **60%** Education**, 25-30%** Research**, 10-15%** Outreach
- Advised ~20 Undergraduate Students and 1 Graduate Student
- Created and finalized 2-year curriculum/degree plan/finances and procurred state and university system approvals for new Online Master's of Ag launch (Blackboard); Coordinated committee of departmental representatives for

online education courses; Stategized and structured new online Master's of Ag Program (plus future offerings); Worked on new coursework and helped devise coursework for Introductory Statistics.

Creative Designer 2019-2020

TAMU Office for Academic Innovation, College Station, TX

- Worked with internal instructional designers and consultants on material and strategies for Canvas release

PUBLICATIONS & PRESENTATIONS

Journal Paper Co-Author (PI: Dr. Meador) - Title: *Using the Rural Cultural Wealth Framework to Investigate Competitive*

Educational Robotics; Submitted and Declined for SP26 (FA25) - Resubmitting

Poster Author - Title: *Evaluating the effectiveness of online instruction for building an "at-home" aquaponics system* (FA25)

Poster Co-Author (PI: Dr. Meador) - *Supporting instruction in Rural Robotics Initiative*; Submitted and Accepted for Cornette Library Faculty and Student Poster Session (FA25)

ASEE Conference Paper & Presentation (Atkins, C.A., et al.); Title: *Engineering Technology – Ag Program*; (SP25)

ASEE Conference Paper & Presentation (Atkins, C., Howell, N., & Meador, A.); Title: *Evaluating the effectiveness of online instruction for building an "at-home" aquaponics system*; (SP25)

ASEE Conference Paper Co-Author (PI: Dr. Meador) - Title: *Bots, Bonds, and Belonging: Investigating Social Emotional Learning in Competitive Rural Robotics Programs (Fundamental, Diversity)*; (SP26)

Atkins, C.A., K.R. Pond, C.K. Madsen, T. Grandin, V.J. Moorman, I.N. Roman-Muniz, and S.L. Archibeque. 2019.

Assessment of detectable first hoof contacts and last break-overs as unique signal fluctuations for horse gait analysis. Trans. Anim. Sci. 3:4. doi: 10.1093/tas/txz089.

Atkins, C.A., K.R. Pond, C.K. Madsen, T. Grandin, V.J. Moorman, I.N. Roman-Muniz, and S.L. Archibeque. 2018.

Investigation of an Embedded-Optical-Base System's Functionality in Detecting Signal Events for Gait Measurements. (PhD Dissertation – 2 Year Embargo)

Atkins, C.A., Pond, K.R., and Madsen, C.K. 2017. In-Motion Optical Sensing for Assessment of Animal Well-Being. Proc. SPIE Comm. Scient. Sens. Imag. : Sens. Agric. Food Qual. Saf. IX 1021709. Doi: 10.1117/12.2262194.

Atkins, C.A. 2013. Agricultural resource intelligent educational lecturer (Master's Thesis). Retrieved from

Texas A&M University Library.

Marcillo G, Atkins C, Bednarz C, Auvermann B, Brandani C. Artificial Intelligence and Digital Agricultural Technologies: Their value on Applied Agroecosystem Research. International conference on Digitalization and Artificial Intelligence in Agricultural Management; 2023 November 15. *(Abstract)*

Atkins, C.A., K.R. Pond, C.K. Madsen, T. Grandin, V.J. Moorman, I.N. Roman-Muniz, and S.L. Archibeque. 2017. In-Motion optical sensing of gait and hoof patterns for assessment of animal well-being. J. Anim. Sci. 95 (Suppl. 4):8. (Abstr.) doi: 10.2527/asasann.2017.015. *(Abstract)*

Atkins, C.A. 2019. Let's talk about traceability. Progressive Cattleman Magazine.
Link: https://www.progressivecattle.com/topics/management/let-s-talk-about-traceability

Atkins, C.A., K.R. Pond, C.K. Madsen, T. Grandin, V.J. Moorman, I.N. Roman-Muniz, and S.L. Archibeque. 2017. In-Motion optical sensing for assessment of animal well-being. Beef Report: Department of Animal Sciences, Colorado State University, Fort Collins, CO.

Atkins, C.A., K.R. Pond, and C.K. Madsen. 2017. In-Motion Optical Sensing for Assessment of Animal Well-Being. Proc. SPIE Comm. Scient. Sens. Imag. : Sens. Agric. Food Qual. Saf. IX 1021709. doi: 10.1117/12.2262194.

Atkins, C.A. (September 2017). Investigative study of animal-in-motion-optical-sensor measurements for assessment of musculoskeletal impairments in livestock. Presentation presented at 2017 High Plains Nutrition and Management Roundtable, Scottsbluff, NE.

Atkins, C.A. 2017. Investigative study of animal-in-motion-optical-sensor measurements for assessment of

musculoskeletal impairments in livestock. Presentation presented at 2017 JBS Graduate Competition. Greely, CO.

Atkins, C.A., K.R. Pond, C.K. Madsen, T. Grandin, V.J. Moorman, I.N. Roman-Muniz, and S.L. Archibeque. 2017. In-Motion optical sensing of gait and hoof patterns for assessment of animal well-being. Poster presented at ASAS 2017. Baltimore, MD.

Atkins, C.A. (October 2016). In-Motion optical sensing of gait and hoof patterns for assessment of animal well-being. Poster presented at 2016 CSU Graduate Student Showcase. Fort Collins, CO.

Atkins, C.A. (September 2016). Investigative study of animal-in-motion-optical-sensor measurements for assessment Poster presented at 2016 High Plains Nutrition and Management, Roundtable. Akron, CO.

McVey, C.G., C.A. Atkins, and K. Jennings. 2017. Facial-inference for dairy cattle production. Business pitch presented at TFF Challenge 2017. Amsterdam, Netherlands.

Atkins, C.A. 2017. In-Motion Optical Sensing for Lameness Detection. Business pitch presented to Zinpro Corporation. Nashville, TN and Fort Collins, CO. *(Continued Discussions)*

Atkins, C.A. 2015. Collaborative Ownership of RaiseAg LLC. Business pitch presented to IMI Global (Where Food Comes From LLC). Castle Rock, CO.

Atkins, C.A. 2019. Sensor Lameness Research. Business and Research pitch presented to MWI Animal Health (AmerisourceBergen Corp.). College Station, TX.

McVey, C.G. and C.A. Atkins. 2017. Facial-inference consultation and pitch for dairy cattle monitoring. Consultation presented to IceRobotics, LLC.

Atkins, C.A., and C.G. McVey. 2017. Lameness detection and facial-inference consultation/pitch for dairy cattle monitoring. Presented to Kraft Family Dairies.

Atkins, C.A. 2017. In-Motion Optical Sensing for Assessment of Animal Well-Being. Proposed to Zinpro Corporation.

Atkins, C.A. 2017. Investigation of Robotics for Automated Adjustment of Stall Widths for Preventing and Managing Dairy Cow Lameness in Free-Stall Facilities. Scheduled Proposal to Western Dairy Association.

Atkins, C.A. 2016. Research Partnership Proposal for Beef, Dairy, and Veal Welfare Lexicon to Meet Strategic Initiatives for the 2016-2020 Beef Industry Long Range Plan. Proposed to NCBA Annual Meeting.

Atkins, C.A. 2016. Collaborative Ear-Tag Sensor and Algorithm Development. Proposed to Quantified Ag LLC.

Atkins, C.A. 2019. Precision Animal Management, Traceability and Ag Communications: The Future of Beef. Presented at National Cattleman's Beef Association for IMI Global, LLC.

Atkins, C.A. 2019. Precision Animal Management, Traceability and Ag Communications: The Future of Livestock Production. Presented at International Livestock Forum.

Atkins, C.A. 2018. Precision Animal Management, Traceability and Ag Communications: The Future of Beef. Presented at CSU Animal Sciences' General Seminar.

TEACHING & MENTORING EXPERIENCE

Assistant Professor – Engineering Technology (Agriculture);

West Texas A&M University College of Engineering

ENGR 6392: MS Engineering Project; ET 4370: Industrial Safety; ET 4392: Ag Tech Research, Innovation, & Entrepenuership; ET 4392: Ag Bio/Material; ET 4392: Food Tech; ET 6392: Ag Engineering Management Schemes

Assistant Professor – Animal Science (Agriculture Technology)

West Texas A&M University Department of Agriculture

ANSC 7301: Integrated Animal Resource Management; ANSC 7346: Advanced Livestock Management Systems; AGRI 4094: Directed Studies (Ag Tech and Precision Management); AGRI 4094: Directed Studies (Advancements and Applications in Ag Tech); AGRI 1329: Food Science (Online); ANSC 4097: Undergraduate Research; AGRI 7092: Special Topics (Online)

Graduate Teaching Assistant

Colorado State University Department of Animal Sciences
ANEQ 286: Livestock Practicum; ANEQ 792A: General Seminar*;* ANEQ 105: Intro to Large Animal Anatomy

Graduate Teaching Assistant

Texas A&M University Department of Animal Science
ANSC 108: Introduction to Animal Science

Undergraduate Teaching Assistant

Texas A&M University Department of Agricultural Leadership, Education and Communications
AGCJ 407: Web Design