

CURRICULUM VITAE

Name: Adama R. Tukuli
Title: USAD-ARS SCINet/AI Center of Excellence Fellow
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A. Education/Training

INSTITUTION AND LOCATION	DEGREE	YEAR (s)	FIELD OF STUDY
University of Missouri	Ph.D.	2022	Plant, Insect, and Microbial sciences
Jimma University	B.S	2007	Plant Sciences

B. Positions and Employment

- April 2024 to present: USDA-ARS SCINet/AI Center of Excellence Fellow, United States Department of Agriculture, Agricultural Research Service, Insect Control and Cotton Disease Research Unit, College Station, TX.
- September 2022 to February 2024: Bioinformatics & Computational Biology Postdoctoral Fellow, University of Missouri, Institute of Health and Informatics, Columbia, MO.
- August 2017 – July 2022: Graduate Research Assistant (PhD student), University of Missouri, Department of Plant Sciences and Technology, Columbia, MO.
- May 2013 to July 2017: Lab Technician, University of Missouri, Department of Plant Sciences and Technology, Columbia, MO.
- Nov 2011 to March 2013: Lab Technician, Beyer (Formerly Monsanto), Genomics and Breeding Research Unit, St. Louis, MO.

C. Awards and Honors

- 2024, USDA, ARS ORISE SCINet AI Center of Excellence Fellow
- 2017, University of Missouri, Ridgel Fellowship
- 2021, University of Missouri, Outstanding Poster and Speed Talk
- 2022, Purdue University with simplilearn, Outstanding Performance for AI/ML Postgraduate Certification Training. <https://success.simplilearn.com/189211c9-d238-4b9a-996e-c4e2c78ec749>

D. Professional Experience

Dr. Adama Tukuli possesses expertise in both life sciences and data science, making him a valuable asset to the weevil detection and classification project. His extensive experience in AI model development is highlighted by his Ph.D. dissertation, where he created a highly accurate AI classification model that distinguishes mutants from wild-type organisms with over 99% accuracy. This work showcased his ability to manage complex classification tasks using a variety of AI techniques. Additionally, Dr. Tukuli has contributed to projects involving advanced computer vision algorithms, which are displayed on his GitHub page. His successful

implementation of these models is directly relevant to the current project, where precise classification of weevil species is essential. Dr. Tukuli's expertise in developing robust and reliable AI models will significantly enhance the project's goal of creating effective tools for weevil identification and eradication programs. In his published papers, Dr. Tukuli has served as a data analyst, handling large datasets from diverse organisms, including animals and plants. His broad experience with big data further underscores his capability to contribute meaningfully to this project.

E. Grants Received

LIST OF PUBLICATIONS (last four years)

Jing Zhou, Nan Lyu, Qionglng Wang, Ming Yang, Eric T Kimchi, Kun Cheng, Trupti Joshi, **Adama R Tukuli**, Kevin F Staveley-O'Carroll, Guangfu Li. A novel role of TGFBI in macrophage polarization and macrophage-induced pancreatic cancer growth and therapeutic resistance, *Cancer letters*, 216457, December, 2023, <https://doi.org/10.1016/j.canlet.2023.216457>

María Ángeles Peláez-Vico, **Adama Tukuli**, Pallav Singh, David G Mendoza-Cózatl, Trupti Joshi, Ron Mittler. Rapid systemic responses of *Arabidopsis* to waterlogging stress. *Plant Physiology*, Volume 193, Issue 3, November 2023, Pages 2215–2231, <https://doi.org/10.1093/plphys/kiad433>

Ranjita Sinha, Sai Preethi Induri, María Ángeles Peláez-Vico, **Adama Tukuli**, Benjamin Shostak, Sara I Zandalinas, Trupti Joshi, Felix B Fritsch, Ron Mittle. The transcriptome of soybean reproductive tissues subjected to water deficit, heat stress, and a combination of water deficit and heat stress. *The Plant Journal*, April 2023, Pages 1064-1080. <https://doi.org/10.1111/tpj.16222>

AR Tukulli. Increasing Methionine Content of Soybean Using CRISPR/Cas9 and Developing Machine Learning Predictive Models. ProQuest Dissertations & Theses, 2022. 29318573. <https://www.proquest.com/docview/2781732005?pq-origsite=gscholar&fromopenview=true&sourcetype=Dissertations%20&%20Theses>

Tukuli, GitHub: <https://github.com/Adaamaa?tab=repositories>
Tukuli, [Adama R Tukuli - Google Scholar](#)