

LEAH MARIE KOCIAN

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ACADEMIA

Texas A&M University • Ph.D., Biological & Agricultural Engineering (4.0/4.0)

Expected: August 2025

Texas A&M University • B.A., Biological & Agricultural Engineering (3.3/4.0)

August 2015 – May 2019

EXPERIENCE

Environmental Researcher – Biobank Automation Company on BINDS

Aug 2019 – Present

– **Modeling Contaminant Transport in Urban Gardens Using Graph Theory and Machine Learning**

- Curtailed data collection time by 20% for 50+ field campaigns by automating a physics-based modeling software
- Reduced experimental processing time by 30% through mentorship and training of 4 undergraduate students
- Communicate synthesized results bi-weekly to the CEO and legal team through slide-deck presentations

Research Associate & Lab Supervisor – Texas A&M National Resources Institute

Aug 2020 – Present

- Oversee operations and maintenance of a \$300k lab, and train 10+ students on precision instrument handling
- Identified critical infrastructure improvements to labs across 4 departments, saving \$1M YoY in maintenance costs
- Cut cleanup costs by 55% through efficient resource allocation and judicious 3rd party contract negotiation
- Developed procedures and protocols across 5 labs to improve efficiency, communication, and optimization of lab work

Environmental Engineer & Scientist Intern – The City of Austin

May 2019 – Aug 2019

- Led 20+ field campaigns to study the relationship between geographical location and bacteria count in Austin lakes
- Directed City of Austin's attention to key issues on water protection in a synthesized report of my research findings

DATA SCIENCE & MACHINE LEARNING PROJECTS

Workout Tracker Application

April 2024 – Present

- Developed a personalized and interactive workout tracker application using the Shiny package in R, integrating machine learning algorithms to dynamically adapt to user behavior and optimize fitness goal achievement

LEADERSHIP & INVOLVEMENT

Texas A&M Graduate Consulting Club (TAMUGC) – Texas A&M University

Aug 2020 – Present

– **President | Chair of the Board**

- Built a driven, adaptive, and diverse leadership team of 9 students from 4 colleges and engaged 150+ club members by adding case-interview prep, 6+ pro-bono projects, and 10+ case workshops
- Brought in multiple-time O&G CEO, Professor Jim (James) Donnell as the primary advisor
- Implemented the first consulting case competition at Texas A&M receiving 100+ applications and \$2K in funding
- Secured \$4,250 in funding for a professional development symposium through a competitive grant application
- Multiplied club endowment by 5.7x in 3 years through company sponsorships, proposals, and membership dues

Star of Hope Mission in Houston

Aug 2015 – Present

- Coordinate gift-organizing and wrapping logistics, and direct 50+ volunteers for the annual holiday gifting events
- Streamlined resident checkout times by 50% by overhauling the front desk book-keeping system

PUBLICATIONS, AWARDS & CONFERENCES

- **Kocian, L., & Mohanty, B. P.** (2024). Characterizing large-scale preferential flow across Continental United States. Vadose Zone Journal. DOI:10.1002/vzj2.20316 [Impact Factor: 3.289, ranked 1st amongst Earth Science Journals]
- Montgomery Award – Awarded for making major contributions to the academic and professional opportunities, and quality of life of their fellow graduate and professional students at Texas A&M University | 2024
- Awarded \$5,000 for completing NSF I-Corps program including 30+ customer interviews over a 6-week period | 2022
- Earned a black belt in Taekwondo under Master Amani, former trainer of the Olympic gold medalist, Steven Lopez

MISCELLANEOUS

- **Technical Skills:** Project management, R, data analytics, statistics, machine learning & optimization
- **Languages:** English (native), Spanish (limited working proficiency)
- **Hobbies:** Escape rooms, traveling, chess, LEGO puzzles & weight lifting