Leah M. Kocian

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ACADEMIA

Texas A&M University • Ph.D., Biological and Agricultural Engineering (4.0/4.0) **Expected: May 2026**

Research Focus: Urban garden health, data-driven solutions for environmental sustainability, and public policy advocacy

Texas A&M University • B.A., Biological and Agricultural Engineering (3.3/4.0) **August 2015 – May 2019**

EXPERIENCE

Ph.D. Researcher (Human & Environmental Health) – Vadose Zone Research Group **Aug 2019 – Present**

- Analyzed soil toxicity in urban gardens, focusing on carcinogenic heavy metals and microplastic distribution, to **assess cancer risk** among local communities dependent on these gardens for food security and socioeconomic stability.
- Restored **4 analytical chemistry instruments** by learning complex technical procedures, saving the lab **$50k+** in replacement costs and securing a fully-funded four-year PhD position.
- Reduced operational costs of a **$1M chemistry lab** by **55%** through judicious negotiations with environmental health officials, developing standardized operational procedures, and streamlining waste management.
- Featured in **CSA News** for novel remote sensing approach to estimate contaminant transport. Presented key findings at the American Geophysical Union attended by **30,000+** industry leaders, policymakers, and scientists.

Environmental Researcher & Data Analyst Lead – Biobank Co. in Cambridge, MA **Aug 2019 – Present**

- Managed a **5-year project** overseeing data collection and analysis to inform policymakers and advocate for toxicity benchmarks in urban gardens, reporting directly to Biobank's CEO.
- Formed and trained a team of **12** students, reducing analysis time for **1000+ samples by 30%**. Created a dashboard for trend analysis and heavy metal concentration comparisons, referenced by industry practitioners and policymakers.
- Optimized sampling strategies for **50+** field campaigns, reducing data collection time by **20%** with the implementation of physics-based modeling software to pinpoint the most promising sampling locations.

Environmental Engineer & Scientist Intern – Austin Watershed Protection Project **May 2019 – Aug 2019**

- Led a **5-member** research team on **20+** empirical studies to establish the relationship between geographical location and bacteria count in Austin lakes, resulting in the temporary closure and cleanup of contaminated water areas.
- Received recognition from the CEO for the direct contributions of research findings on water quality issues, contributing to policy decisions and actionable solutions for the City of Austin.

LEADERSHIP

Texas A&M Graduate Consulting Club (TAMUGC) – Texas A&M University **Aug 2020 – Present**

– President | Chair of the Board

- Transformed and scaled a consulting development program, expanding it from the ground up by orchestrating **6+** pro bono projects and **10+** case workshops, engaging **150+** club members (started with 6 when elected president).
- Spearheaded a partnership between TAMUGC and the Energy Research Society at Texas A&M to implement the first consulting case competition at Texas A&M, attracting **$6K+** in funding and drawing **100+** participants.
- Increased club endowment by **5.7x** in **3** years by negotiating company sponsorship deals, event collaborations with campus organizatinons, grant acquisitions, and doubling membership.

PUBLICATIONS, AWARDS & VENTURES

- 2025 | Appointed **Head of Branding** for a luxury hospitality startup pursuing an **$8M** capital raise with a projected **23% IRR by year 10**; leading an **11-member international team** in shaping the customer experience strategy.
- 2025 | Nominated to serve on the Texas A&M 2040 University Working Environment and Ecosystem Committee.
- 2024 | Created a user-friendly productivity enhancement tool gaining **1300+** site visit and **1,000** downloads by aggressively marketing to users through social media platforms via a comprehensive YouTube tutorial.
- 2024 | **Kocian, L.**, & Mohanty, B.P. Characterizing large-scale preferential flow across Continental United States. Vadose Zone Journal, 23, e20316. https://doi.org/10.1002/vzj2.20316.
- 2024 | Montgomery Award – Top **2** selected out of **200+** applicants to receive **$1,000** award for having a major positive impact on the Texas A&M graduate and professional student community as the TAMUGC president.
- 2022 | Awarded **$5,000** from NSF I-Corps accelerator program for our investing digest startup, recognizing our approach to identifying customer needs and developing impactful, market-driven products.
- 2010 | Earned a black belt in Taekwondo under Master Amani, trainer of Olympic gold medalist Steven Lopez.

MISCELLANEOUS

- **Technical Skills:** R (dplyr, tidyr, shiny, ggplot2, caret, etc.), data analytics and visualization, machine learning, Monte Carlo methods, statistics & graph theory
- **Interests:** Escape rooms, traveling, Sudoku, chess, LEGO puzzles, poker, crypto, weight lifting & value investing