Zachary Hansen

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EDUCATION

University of Arizona, College of Science — **Tucson, Arizona**
Master of Science in Computer Science — GPA: 3.67 — *Expected May 2027*

University of Arizona, College of Science — **Tucson, Arizona**
B.S. Computer Science; Minors in Information Science and Studio Art — GPA: 3.74 — *May 2025*

Quantitative Coursework: Statistical Foundations, Principles of Data Science, Calculus I & II, Discrete Mathematics I & II, Database Management, Data Visualization, Algorithms.

Honors: HSF Scholar (2026, 2025), Galileo Circle Scholarship (2026, 2024), Nike HSF Scholarship (2025), National Hispanic Scholar (2019), Dean's List with Distinction (2021–2022).

EXPERIENCE

Senior Market Research Analyst — **May 2026 – Present**
Tech Launch Arizona, University of Arizona — *Tucson, Arizona*

- Produce Commercialization Assessment Reports that determine whether the university patents, licenses, or spins out a disclosed technology, valuing each opportunity against market size, competitive intensity, and prior art
- Build market sizing and competitive landscape analyses from industry statistics, patent databases, and financial and trade publications to estimate revenue potential and adoption barriers for early-stage inventions
- Write non-confidential technology briefs used directly by licensing managers, faculty inventors, and prospective commercial partners, translating dense technical material into decision-ready recommendations

Team Lead, Data & AI Research — **August 2022 – Present**
Arizona Center for Accelerated Biomedical Innovation (ACABI) — *Tucson, Arizona*

- Designed and executed an NIH-funded evaluation spanning 5 systems, 180 prompts, and 45,000 API queries, owning the full pipeline from experimental design and budget through data collection, statistical testing, and reporting
- Ran hypothesis testing on categorical outcomes to identify a greater than 150-fold difference in failure rates across systems, significant at the 1% level ($\chi^2 = 11.13$, $p = 0.0038$)
- Built a prompt-specificity framework and 11 custom NLP tools quantifying legal and copyright risk exposure across commercial and open-source models ($p < 0.05$); coordinated physician expert panels to convert subjective review into a scored, reproducible benchmark

Data Analyst Intern, ADVANCE Kidney Program — **May 2023 – August 2024**
University of Arizona — *Tucson, Arizona*

- Analyzed multimodal time-series sensor data from FDA-approved wearables, camera systems, and millimeter wave radar boards to assess the viability of competing measurement technologies
- Delivered a comparative efficacy study across six standardized motions and multiple metrics that identified which system merited continued investment; results published in a peer-reviewed journal

Senior Teaching Assistant, Computer Science Department — **August 2021 – May 2025**
University of Arizona — *Tucson, Arizona*

- Instructed 400+ students across 6 courses in Python, Java, data analysis, and web design; promoted to Senior Teaching Assistant in 2024 for performance and leadership

PUBLICATIONS & PRESENTATIONS

- Rodriguez J, Hansen Z, et al. "Fallibility, Persuadability, and Correctability of Large Language Models Under Sustained Conversational Misinformation Pressure." Scientific Reports, Nature Portfolio (2026). doi.org/10.1038/s41598-026-68231-0
- Rohrer K, De Anda L, Grubb C, Hansen Z, et al. "Around-Body Versus On-Body Motion Sensing: A Comparison of Efficacy Across a Range of Body Movements and Scales." Bioengineering, MDPI, 11(11), 1163 (2024). doi.org/10.3390/bioengineering11111163
- Selected for oral presentation at BMES 2025; presented posters at ASAIO (2024, 2026), Sarver Heart Center Cardiovascular Research Symposium (2025), BIO5 Research & Innovation Showcase (2024), and KUH Undergraduate Research Symposium (2024).

SKILLS

Quantitative: Statistical hypothesis testing, regression and correlation analysis, experimental design, market sizing, competitive and prior-art analysis, data cleaning and visualization

Technical: Python (Pandas, NumPy, SciPy, Matplotlib), SQL (PostgreSQL, SQLite), Excel, R, Java, JavaScript, Bash, Git/GitHub, Jupyter, d3.js