

Dr. Mana Azizsoltani

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<https://orcid.org/0009-0001-5193-2823>

EDUCATION

University of Nevada, Las Vegas (UNLV)

Ph.D. in Hospitality Administration

Las Vegas, Nevada

August 2022-May 2025

- Dissertation: Forecasting Hotel Demand Using Stacked Generalization
- Advisor: Dr. Ashok Singh
- Major: Data Analytics
- GPA: 4.000

North Carolina State University (NCSU)

Master of Statistics

Raleigh, North Carolina

May 2020-May 2021

- GPA: 4.000

University of Nevada, Las Vegas (UNLV)

Bachelor of Science in Mathematics

Las Vegas, Nevada

August 2017-May 2020

- GPA: 3.804
- Major GPA: 4.000

PROFESSIONAL EXPERIENCE

Differential Labs

Head of Data Science

Las Vegas, NV

March 2024-Present

- Lead data-driven strategies to optimize casino operations with regards to marketing, staffing, management, anti-money laundering, advantage play detection, and responsible gambling
- Develop and implement predictive and generative artificial intelligence models and pipelines for casino operators and manufacturers to extract player insights and hyper personalize in real-time
- Consult with and manage development, product, and data science teams at multinational casino operators across different jurisdictions in Asia, Oceania, North America, and Europe

UNLV International Gaming Institute

Research Scientist

Las Vegas, NV

August 2023-Present

- Machine learning applications of gambler bet data from land-based slot machines to detect problematic gambling
- Analysis of online gambler data to identify player profiles, behavior patterns, and high-risk behavior
- Use of digital payments data to predict gambler transaction decline using supervised machine learning

UNLV Lee Business School

Graduate Assistant

Las Vegas, Nevada

August 2023-February 2025

- Work under Chris Utterback to inaugurate and grow the Kerestesi Center for Insurance and Risk Management
- Facilitate student and community engagement by representing UNLV at a variety of events
- Assist with the development of programming and curriculum for an undergraduate major and minor
- Mentor, advise, tutor, and lead undergraduate students

UNLV College of Hospitality

Graduate Research Assistant

Las Vegas, Nevada

August 2022-May 2025

- Application of machine learning techniques to predict vape initiation and quitting behaviors

- Prediction of unconstrained demand in hotels using machine learning models
- Demand modeling of aggregate stadium attendance using machine learning
- Application of machine learning models to detect hypoxemia post-operation

UNLV Lee Business School

Las Vegas, Nevada

Graduate Research Assistant

August 2022-May 2022

- Worked under Dr. Yong Li in the Troesh Center for Entrepreneurship and Innovation
- Scraped, compiled, cleaned, analyzed, and visualized data on SPAC companies using R and Python

NC State Department of Public Administration

(remote)

Student Statistical Consultant

January 2021-June 2021

- Compiled, cleaned, and combined data from various databases and built a fixed effects model in R
- Created summaries, reports, and visualizations and explained them to academics of different disciplines

UNLV Department of Hospitality

Las Vegas, NV

Undergraduate Research Assistant

March 2019-May 2020

- Predicted hotel cancellations using various machine learning techniques such as: random forest, Bayesian logistic regression, support vector machines, and neural networks using R
- Used parametric bootstrapping to estimate the autocorrelation correlation coefficient of time series data

Complete Actuarial Solutions Co. (CASCO)

Washington D.C.

Actuarial Intern

May 2019-July 2019

- Summarized insurance claims data for automotive, workers' compensation, medical malpractice, and other lines of coverage and created visual representations in Microsoft Excel to see reserving patterns
- Created actuarial triangles and analyzed loss development factors to understand claim development
- Worked with actuaries to create reserving and valuation reports for clients

Universal Retirement

Las Vegas, NV

Finance Intern

April 2019-May 2019

- Analyzed and calculated various retirement plans to create visual representations for clients in Excel
- Explained and recommended retirement plans to people of different financial backgrounds
- Worked with financial advisors to develop appropriate financial plans for clients

AAA Water

Walnut Creek, CA

Office Clerk

July 2018-October 2018

- Manually prepared and moved inventory in warehouse and entered orders into WATER software
- Contacted customers to schedule appointments for water filter service

Aquatic Experts

Maui, HI

Service Provider

May 2018-July 2018

- Serviced both commercial and residential pools, aquariums, ponds, and water filters
- Collaborated with other service providers on large-scale, contracted projects
- Canvassed new clients and solicited new accounts by attending community events and going door-to-door

RESEARCH EXPERIENCE

Research Interests

- Predictive/statistical modeling
- Explainable Artificial Intelligence (XAI)

- Machine learning applications to hospitality and gaming
- AI for good in relationship to gambling disorder, fraud detection, advantage play identification

Peer-Review Publications

- Ghaharian, K., **Azizsoltani, M.**, Puranik, P., Cohen, C., & Chagas, B. (2026). Characterising online gamblers exceeding financial risk thresholds in the UK: A retrospective analysis using open banking data. *Public Health*. Article 106080. <https://doi.org/10.1016/j.puhe.2025.106080>
- Gómez-Talal, I., **Azizsoltani, M.**, Biscoff, J., Ghaharian, K., & Singh, A.K. (2025). A systematic review of machine learning methodologies in hotel revenue management. *European Journal of Tourism, Hospitality and Recreation*. 15(2), 311-327. <https://doi.org/10.2478/ejthr-2025-0022>
- Ghaharian, K., Peterson, J., **Azizsoltani, M.**, Young, R. J., & Louderback, E. R. (2025). Across the bettor-verse: An open banking perspective on gambling in the United Kingdom. *Journal of Gambling Studies*, 1-18. <https://doi.org/10.1007/s10899-025-10419-6>
- **Azizsoltani, M.**, Ghaharian, K., Kraus, S., & Grubbs, J. (2025). Measurement invariance of the Problem Gambling Severity Index across sociodemographics and gambling modalities. *International Gambling Studies*, 1–19. <https://doi.org/10.1080/14459795.2025.2529177>
- Gómez-Talal, I., **Azizsoltani, M.**, Bote-Curiel, L., Rojo-Álvarez, J. L., & Singh, A. (2025). Towards explainable artificial intelligence in machine learning: A study on efficient perturbation-based explanations. *Engineering Applications of Artificial Intelligence*, 155, Article 110664. <https://doi.org/10.1016/j.engappai.2025.110664>
- Gómez-Talal, I., **Azizsoltani, M.**, Talón-Ballester, P., & Singh, A. (2025). Machine learning in hospitality: Interpretable forecasting of booking cancellations. *IEEE Access*, vol. 13, pp. 26622-26638, 2025, <https://doi.org/10.1109/ACCESS.2025.3536094>

Under Review Papers

- Basurte-Villamor, I., Gómez-Talal, I., Vega, P., **Azizsoltani, M.**, Ferre, F., Szerman, N. [2025]. Building a brief multidomain questionnaire for gambling dual pathology: A psychometric study. *Addictive Behaviors*.
- Gómez-Talal, I., **Azizsoltani, M.**, Basurte-Villamor, I., Vega, P., & Szerman, N. [2025]. Identifying latent clinical subprofiles in gambling disorder using dimensionality reduction and explainable AI. *Psychiatry Research*.
- **Azizsoltani, M.**, Navarrete-Parra, K., Gómez-Talal, I., & Hoffman, A. [2025]. A qualitative exploration of the school-to-work transition: A recent graduate perspective. *Journal of Vocational Behavior*.
- **Azizsoltani, M.**, Gómez-Talal, I., Hoffman, A., & Singh, A.K. [2025]. Teaching statistics to hospitality students: A theoretical perspective. *Journal of Hospitality and Tourism Education*.
- **Azizsoltani, M.**, Gómez-Talal, I., Gonzalez-Serrano, L., Talon-Ballester, M., & Ghaharian, K. [2025] Forecasting hotel occupancy with explainable stacked generalization. *Journal of Hospitality and Tourism Technology*.
- **Azizsoltani, M.**, Gómez-Talal, I., Ghaharian, K., & Rojo-Alvarez, J.L. [2025]. Interpretable behavioral clusters of gamblers through unsupervised learning. *Acta Psychologica*.

Work-In-Progress Papers

- Gómez-Talal, I., **Azizsoltani, M.**, Basurte-Villamor, I., Vega, P., & Szerman, N. [2026 Spring]. Detecting disordered gamblers using machine learning: A dual disorder framework. Target: *JAMA Psychiatry*. Stage: manuscript composition
- Biscoff, J., Bazarnik, A., **Azizsoltani, M.**, & Ghaharian, K. [2026 Spring]. How do hotel customers feel about AI service technologies? A scoping review. Target: *International Journal of Contemporary Hospitality Management*. Stage: Manuscript composition.

- **Azizsoltani, M., & Gomez-Talal, I.** [2026 Spring]. Prediction of aggregate stadium attendance in professional European football. Target: *Journal of Sports Economics*. Stage: Data collection.
- Navarette-Parra, K., Gómez-Talal, I., **Azizsoltani, M.** [2026 Summer]. *Quantifying luck: Determining the probability of baccarat wins given player bet mix*.

Textbook Chapters

- Dimitriou, C.K., & **Azizsoltani, M.** [2026 Fall]. Respecting and managing diversity, equity, and inclusion. In C.K. Dimitriou & Nunkoo, R. (Eds.), *Handbook of Tourism Leadership* (pp. TBD). Elgar, E.

Conference Presentations

- **Azizsoltani, M.,** Gómez-Talal, I., Ghaharian, K., Puranik, P. (2026, May 27). *Quantifying luck: Determining the probability of baccarat wins given player bet mix*. [Paper presentation] 19th International Conference on Gambling & Risk Taking.
- Gómez-Talal, I., Basurte-Villamor, I., **Azizsoltani, M.,** Vega, P., Gonzalez-Peñas, J., Ferre, F., & Szerman, N. (2026, May 8-10). *Shapley interaction networks for explaining the clinical course of gambling disorder* [Paper presentation]. 2026 IEEE International Conference on Artificial Intelligence.
- **Azizsoltani, M.,** Bischoff, J., Gómez-Talal, I., Ghaharian, K., Puranik, P., & Abarbanel, B. (2026, March 6). *Open science in hospitality: A scoping review* [Poster presentation]. UNLV Harrah College of Hospitality Research Forum.
- Gómez-Talal, I., **Azizsoltani, M.,** Ghaharian, K., Costa, C., & Talón-Ballesteros, P. (2026, February 27). *Explainable machine learning for hotel upselling in Portugal* [Paper presentation]. International Conference on Culture, Tourism, and Hospitality.
- **Azizsoltani, M.,** Gómez-Talal, I., Rojo-Alvarez, J.L., & Ghaharian, K. (2025, October 6). *Interpretable behavioral clusters of gamblers through unsupervised learning* [Poster presentation]. 26th ICRG Conference on Gambling and Addiction.
- **Azizsoltani, M., & Gómez-Talal, I.** (2025, October 2). *Avanzando en la ética y la gobernanza de la IA en el sector del juego: Un piloto de traducción de investigación* [Paper presentation]. Club de Convergences. Madrid, Spain.
- **Azizsoltani, M.** (2025, April 17). *Characterizing UK online gamblers exceeding financial risk thresholds*. [Paper presentation]. 2025 GLI Regulator Roundtable.
- Bischoff, J., **Azizsoltani, M., & Bazarnik, A.** (2025, January 5) *How do hotel customers feel about AI service technologies? A scoping review*. [Paper presentation]. The 30th Annual Graduate Education & Graduate Student Research Conference in Hospitality and Tourism.
- Gómez-Talal, I., & **Azizsoltani, M.** (2024, November 4-7). *Interpretable forecasting of booking cancellations with stacked generalization*. [Paper presentation]. EuroCHRIE Conference 2024.
- **Azizsoltani, M.** (2024, November 6). *Clustering slot machine players using session-level transaction data*. [Poster presentation]. Technology, Risk and Gambling Early Career Researcher Showcase.
- **Azizsoltani, M.,** Ghaharian, K., Gómez-Talal, I., Larni, M., & Puranik, P. (2024, October 6-7). *Clustering slot machine players using session-level transaction data*. [Poster presentation]. 25th ICRG Conference on Gambling and Addiction.
- **Azizsoltani, M., & Ghaharian, K.** (2024, September 10-13). *An ordinal categorical variable approach to assessing measurement invariance using the theta parameterization for MG-CFA*. [Paper presentation]. 14th European Conference on Gambling Studies and Policy Issues.
- **Azizsoltani, M., & Ghaharian, K.,** Kraus, S., Grubbs, J. (2024, May 23-24). *An assessment of the measurement invariance of the Problem Gambling Severity Index (PGSI)*. [Paper presentation]. Nevada Annual State Conference on Problem Gambling
- **Azizsoltani, M., & Singh, A.K.** (2023, December 14). *Machine learning prediction of hotel room demand* [Paper presentation]. 6th Annual RevME Hospitality Management and Analytics Conference.

- **Azizsoltani, M.** (2023, June 13). *Detection of customer transaction decline using machine learning* [Paper presentation]. Webinar on Safer Gambling: Insights from Leading Researchers & Applicability, virtual conference.
- Ghaharian, K., & **Azizsoltani, M.** (2023, May 23-25). *Predicting declined transactions in gambling payments data* [Paper presentation]. International Conference on Gambling & Risk Taking, Las Vegas, NV.
- **Azizsoltani, M.** (2023, April 15). *Teaching statistics in hospitality* [Paper presentation]. Graduate & Professional Student Research Forum, Las Vegas, NV.
- **Azizsoltani, M.**, & Singh, A.K. (2023, March 17). *Teaching statistics in hospitality using R* [Paper presentation]. 2023 Hawkes Learning Innovative Educators Summit (IES), virtual conference.
- **Azizsoltani, M.** (2023, February 19-18). *Predicting cancellations in bookings using machine learning* [Poster presentation]. 2023 West Federation of Council on Hotel, Restaurant, and Institutional Education (WF-CHRIE), Las Vegas, NV.

Research Funding

- GamBrain. Madrid, Spain. (€15,000 EUR).
- AXES Scholar. Las Vegas, Nevada (\$10,000 USD).
- Project LATENTIA research fellowship. Madrid, Spain (€4,000 EUR).
- NVDHHS 2024 Research Grant for problem gambling research (\$3,000 USD).
- UNLV Hospitality Doctoral Summer Research Grant (\$5,000 USD).
- NVDHHS 2023 Research Grant for problem gambling research (\$5,000 USD).
- UNLV IGI Student Scholarship for International Conference of Gambling & Risk Taking. (\$900 USD)

Research Honors & Awards

- Research Certification, UNLV. 2024-2025. Las Vegas, NV.
- Semifinalist, UNLV Three Minute Thesis (3MT) Competition. *Predicting cancellations in bookings using machine learning*. Las Vegas, NV.
- Best Poster for “Predicting cancellations in bookings using machine learning”, 2023 West Federation of Council on Hotel, Restaurant, and Institutional Education (WF-CHRIE), Las Vegas, NV.

Academic Reviews

- Ad-hoc reviewer, *Journal of Applied Machine Learning and Statistics*
- Ad-hoc reviewer, *UNLV Gaming Review Journal*
- Ad-hoc reviewer, *Engineering Applications of AI*
- Ad-hoc reviewer, *Journal of Hospitality & Tourism Technology*
- Ad-hoc reviewer, *Journal of Gambling Studies*

TEACHING EXPERIENCE

Teaching Interests

- Statistics / Data analytics / Machine learning
- Research methods
- Revenue management / Forecasting
- Hospitality / Casino Management

Courses Instructed

Number	Name	Detail	Semester	Size	Format
HOA 730			Spring 2026	21	Hybrid

	Statistical Analysis for Hospitality	Applies statistical methods to analyze data and support decision-making in hospitality contexts.			
HOA 732	Advanced Statistical Analysis	Apply advanced analytical methods for research and business problems in hospitality	Spring 2026	16	Online
FAB 333	Culture and Cuisine	Explores how culture and history influence global cuisines and food behaviors.	Spring 2026	19	Person
FAB 333	Study Abroad in Spain	Designed and led study abroad in Spain (Madrid, Valencia, Barcelona); on global culture and cuisine	Summer 2025	48	Person

Teaching Assistant Courses

Number	Name	Detail	Semester	Size	Format
HOA 730	Statistical Analysis for Hospitality	Applies statistical methods to analyze data and support decision-making in hospitality contexts.	Spring 2024	18	Online
			Fall 2023	35	Online
			Fall 2022	19	Hybrid
HOA 732	Advanced Statistical Analysis	Apply advanced analytical methods for research and business problems in hospitality	Spring 2025	16	Online
			Summer 2023	13	Online
			Spring 2023	14	Online
			Spring 2019	18	Person
MGT 709	New Venture Feasibility	Focuses on identifying, evaluating, and testing the viability of new business ideas through feasibility analysis and customer validation.	Fall 2022	12	Person
MGT 710	New Venture Creation	Guides students through launching a startup, covering business planning, market strategy, operations, and execution of a new venture.	Fall 2022	10	Person

Guest Lectures

- Ms. Zhanna Kozlova, Undergraduate Capstone Project in Data Science, Spring 2023, Breda University of Applied Sciences, Breda, NL (in person)
- Dr. Ashok Singh, HOA 730, multiple semesters, UNLV, Las Vegas, NV (online and in person)
 - Chi-square Testing
 - Introduction to R and RStudio
 - Correlation and measures of association
 - Comparison of means
- Dr. Ashok Singh, HOA 732, multiple semesters, UNLV, Las Vegas, NV (online and in person)
 - Time series modeling
 - Regression analysis
 - Machine learning modeling

- Random Forest and XGBoost
- Mr. Mohsen Azizsoltani, UNLV, Las Vegas, NV (in person)
 - FAB 390 – Spirits and Liquors
 - FAB 290 – Controlling and Selling to a Profit
 - FAB 330 – Cost Control
- Ms. Scarlett Baughman, Success in College, HMD 100, Spring 2023, UNLV, Las Vegas, NV (in person)
- Dr. Anthony Lucas, Mathematics of Casinos, HOA 536, Fall 2023, UNLV, Las Vegas, NV (in person)
- Dr. Cass Shum, Hospitality PhD Seminar, HOA 794, Fall 2024, UNLV, Las Vegas, NV (in person)
- Dr. Alex Hoffman, Data Visualization, Fall 2024. Belmont University, Nashville, TN (in person)

Other Teaching Experience

Self-Employed

Las Vegas, NV

Private Tutor

August 2019-May 2024

- Tutor high school and college students in a variety of statistics and math classes
- Simplify and explain complex concepts in mathematics and statistics to diverse clients

Various Public Schools

Barcelona, Spain

Substitute Teacher

September 2021-November 2021

- Taught elementary-level English, physical education, and mathematics classes to Spanish students in English and Spanish at various elementary schools in the Barcelona metropolitan area

College of Southern Nevada

Las Vegas, NV

Tutor of Mathematics

January 2019-May 2019

- Tutored college students at various math levels to facilitate a better understanding of math concepts
- Simplified and explained mathematical concepts in easy-to-understand language
- Collaborated with other tutors to develop new techniques to teach students

OUTREACH & SERVICE EXPERIENCE

Academic Service

- Creator and inaugural instructor, UNLV Hospitality Summer Studies in Spain
- Grad College Peer Mentor, UNLV Graduate College (2024-2025)
- Grad Rebel Advantage Mentor, UNLV Graduate College (2024-2025)
- Founding member, UNLV Hospitality Dean's Advisory Council (2024-2025)
- Faculty Advisor for BBB Student Organization. UNLV College of Hospitality. Phocuswright Conference, Miami, FL (November 2023)
- Ad-hoc Online Curriculum Committee, UNLV College of Hospitality
- Data Analytics Certificate Subcommittee, UNLV College of Hospitality

Community Service & Outreach

Cultural Diversity Foundation's Annual Educational Taste of Excellence

Las Vegas, Nevada

Board Member & Director of Operations

March 2022-September 2024

- Help plan, organize, and manage a wine and food event of 1000 attendees at the Westgate
- Solicited, trained, and managed 100 volunteers, including UNLV and CSN students
- Contributed to a 25% growth in attendees over a three-year period, resulting in over \$100,000 raised for student scholarships

Gamma Iota Sigma (GIS) – UNLV Chapter

Las Vegas, Nevada

Founder & President

May 2023-August 2024

- Charter a GIS chapter on UNLV campus to educate students about the insurance industry

- Build a professional community around the insurance industry, connecting students to opportunities
- Represent UNLV at multiple conferences including InsureTech and GIS Annual Conference

Troesh Center for Entrepreneurship

Las Vegas, Nevada

Graduate Assistant

August 2022-May 2023

- Organized, planned, and executed the 2022 Troesh Research Conference
- Set up and worked the 2022 Global Consortium of Entrepreneurship Centers conference
- 1-on-1 mentorship of entrepreneurship students, both at the graduate and undergraduate level

UNLV Soccer Club

Las Vegas, Nevada

Founder & President

January 2019-February 2023

- Founded an organization that unites students of different backgrounds through soccer
- Increased club membership by 2.5x
- Planned, organized, and hosted watch parties, soccer tournaments, and pickup games

Barcelona Book Club

Barcelona, Spain

Co-Founder

October 2021-January 2022

- Founded and headed a book club of 15 members from 9 different countries

Nevada Risk and Insurance Management Society

Las Vegas, Nevada

Executive Board Member

September 2019-May 2020

- Served as the intermediary between the professional chapter and the student chapter at UNLV
- Educated students about the insurance industry and connected them to employers
- Organized a Christmas gala of 220 attendees from the insurance industry

AMSTAT Student Chapter

Las Vegas, Nevada

Vice President

January 2019- May 2020

- Hosted and solicited volunteers for the event “State of Data Science in Las Vegas”
- Connected students of mathematics and statistics to job opportunities

University of Nevada, Las Vegas

Las Vegas, Nevada

Rebel Ambassador

April 2019-May 2020

- Give guidance to prospective UNLV students and their families
- Travel to local high schools to promote UNLV

Extracurricular Activities

The Rebel Revolution

Las Vegas, Nevada

Co-creator & Host

September 2023-March 2025

- <https://open.spotify.com/show/1xfePE5KeTYJFdoz0PDV0T?si=ec029c3419f54265>
- Write and record a podcast that highlights the innovations happening on UNLV’s campus
- Market, promote, and advertise UNLV as a center for innovation and scholarship

The Job Forum Podcast

Las Vegas, Nevada

Creator & Host

September 2022-December 2023

- <https://open.spotify.com/show/3HrzYII7QOj8CyYYj19r3o?si=932566797aaf4cba>
- Write and record a podcast about recent graduates’ journeys through college and into the workforce, bringing guests of different disciplines.

KUNV HD2 Radio

Radio Host

Las Vegas, Nevada
September 2022-December 2022

- <https://www.unlv.edu/people/mana-azizsoltani>
- Host for two hours on the UNLV HD2 radio station
- Read public service announcements and keep track of music and advertisements

Honors, Awards, and Acknowledgements

- Invited Speaker, *An introduction to explainable AI*. Belmont Data and AI Collective (BDAIC), November 2025, Nashville, TN
- Invited Speaker, *Applications of AI in the casino industry*. Belmont Data & AI Society, November 2025, Nashville, TN
- Panelist, *Applications of AI for responsible gambling*. IGT Italia. September 2024. Rome, Italy
- Mentorship Certification – University of Nevada, Las Vegas. May 2024. Las Vegas, NV
- Invited Guest, Universidad de Buenos Aires, Facultad de Ciencias Exactas. December 2023, Buenos Aires, Argentina
- Invited Guest, Breda University of Applied Sciences. June 2023. Breda, Netherlands
- Speaker, *UNLV Hospitality Mentor Ceremony*. May 3, 2023. Las Vegas, NV
- Financial Literacy & Wellness Certification – University of Nevada, Las Vegas. May 2023. Las Vegas, NV
- Outstanding Service Award, *Cultural Diversity Foundation's Educational Taste of Excellence*. March 25, 2023. Las Vegas, NV
- Panelist, *Food Service CEO Symposium*, February 27, 2023. Las Vegas, NV

OTHER SKILLS

- Bilingual: fluent in **Spanish** and **English**, verbal and written