ROZETTE HESSE

Data Scientist | Entrepreneur

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Education

Jul 2022- Jun 2023 **EDHEC Business School** — **Lille, France**
MSc in Data Analytics & Artificial Intelligence with Data Science Emphasis
QS-EDHEC 50% Scholarship Holder - EDHEC Student Ambassador, *GPA: 17/20*

Aug 2017- Jun 2021 **Lebanese American University** — **Beirut, Lebanon**
B.S. in Bioinformatics, Minor in Business Data Analytics *Placed on Honor List, cGPA:3.31*

Relevant Experience

Sep 2025- Present **Lebanese American University AKSOB ITOM Department** — **Beirut, Lebanon**
Adjunct Faculty
- Teach AI in Business & IT Management using applied, case-based, and interactive methods.
- Supervise projects on business processes, databases, dashboards, and AI solutions.
- Assess student work in analytics, enterprise systems, and digital transformation.

Feb 2024- Present **InBalance** — **Beirut, Lebanon**
Founder & CEO
- Founded and led an AI-driven women's health startup focused on hormonal wellness.
- Developed machine learning models for cycle prediction and symptom-based insights.
- Designed an AI recommendation engine for personalized food, movement, and wellness guidance.
- Led product strategy, business development, partnerships, and accelerator applications.
- Built and coordinated a cross-functional team across AI, healthcare, and business.
- Pitched and showcased InBalance at GITEX, VivaTech, and AI Summit.

Aug 2023- Aug 2024 **L'Oréal Liban** — **Beirut, Lebanon**
Data Analyst & Revenue Growth Management Specialist
- Managed and analyzed sales and stock data of primary and secondary clients to optimize business strategies.
- Optimized sales forecasting models, reducing stock inefficiencies by 15%.
- Developed data visualization dashboards to track performance trends and drive decision-making.
- Identified growth opportunities via in-depth market sales analysis, driving 8% increase in targeted revenue.
- Received the Best Learning Agility award after 3 months of joining.

Sep 2021- Sep 2022 **TeamTek Consulting** — **Remote London, UK**
Project Manager Officer & Delivery Consultant
- Identified inefficiencies in the hiring workflow and proposed an applicant tracking system.
- Implemented an ATS and optimized talent sourcing & onboarding reducing recruitment time by 30%.
- Worked closely with sales and back-office teams to align processes and enhance internal system integration.
- Managed the sales and client relationships with banks in the Middle East, increasing retention rates.

Apr 2019- May 2021 **Academic Success Center LAU** — **Beirut, Lebanon**
Biostatistics Tutor
- Provided the most attended walk-in and online tutoring sessions with 50+ students per session.
- Created structured lesson plans and personalized study guides, simplifying complex statistical concepts.
- Helped students improve their grades significantly, with 80% achieving A as a final score.
- Provided hands-on- SPSS training, ensuring students could analyze data effectively.

Jun 2019- Aug 2019 **Lyra Analytics** — **Remote, Egypt**
Machine Learning & Data Science Intern
- Designed and implemented machine learning models of 93% accuracy to predict client inventory needs.
- Led data analysis projects, identifying key trends to optimize client resource allocation.
- Developed automated reports and dashboards, improving real-time decision making for clients.
- Collaborated with a team of four to refine predictive algorithms, driving higher operational efficiency.

Projects, Research & Peer Reviewed Publications

Aug 2022- Feb 2023 **PCOS Diagnosis & Treatment Prediction** **EDHEC Business School**
Machine Learning & Data Science Research Project

- Built a CNN model to predict PCOS diagnosis & treatment, improving accuracy by 95%.
- Integrated EHR data for AI-driven clinical decision support in endocrinology and gynecology.
- Compared AI vs. traditional methods, demonstrating faster, more precise diagnosis.

Dec 2021- Feb 2022 **Topological Edge Set Enrichment Analysis** **University of Bergen**
Research Assistant

- Conducted literature review on topological edge set enrichment analysis and dysregulated pathways.
- Optimized the mathematical method used to calculate the topological edge scores.
- Validated the adjustment's effect on identifying the usual and dysregulated pathways.

Jun 2021- Aug 2021 **Tutoring Optimization & Recommender System** **Academic Success Center, LAU**
Machine Learning Project

- Designed an AI-powered tutor-student scheduler, reducing conflicts by 35%.
- Developed a Python-based recommender for matching students with ideal tutors.
- Built a Tableau dashboard to track tutoring performance & success rates.

Sep 2021- Dec 2021 **Music Informatics** **Remote, Lebanon**
Network Science Research Project

- Implemented supervised learning & network science to cluster music genres from letter notation.
- Transforming audio into letter notation using R to be read as DNA.
- Developed a graph-based AI model for music similarity detection using R, Gephi & Cytoscape.

Apr 2020- Aug 2020 **Biomedical Applications of Biomaterials** **Remote, Lebanon**
Copy-editing

- Reviewed and refined scientific content, structure, and clarity for a peer-reviewed biomaterials study.
- Ensured technical accuracy and consistency in discussing biomedical applications and patents.
- Collaborated with researchers and co-authors to enhance readability while maintaining scientific integrity.
  Kousar, S.S., Hesse, R., K.S, M. (2020), A Comprehensive Review on Biomedical Applications of Biomaterials: Patents of the Decade (2011-2020)

Jan 2020- Jan 2021 **Integrin Bioinformatics Study** **Schools of Arts & Science, LAU**
Capstone Project

- Reviewed literature related to integrin family proteins and cleft palate formation.
- Conducted coevolutionary studies on integrin subfamilies.
- Predicted secondary structures of certain integrin subunits using I-TASSER.
- Investigated protein-protein interactions via molecular docking using Swisspdb.

Jan 2020- Apr 2020 **Keratoconus Prevalence in Lebanon** **Schools of Arts & Science, LAU**
Research Assistant

- Conducted primary source research through surveys on Keratoconus across the Lebanese population.
- Explored the data to identify important genetic attributes.
- Identified the relationship between demographics and KC using SPSS and R.
- Validated the accuracy of the logistic regression model created to display the important attributes.
  Hamman, A., Hesse, R., Atat, O., Najem, S., Azzam, W., Farraj, L., & Sabbagh, M. (2020), Global Increase in the Prevalence of Keratoconus across the Lebanese Population

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Skills, Languages, & Interests

Programming languages: R Programming, Python, Java.
Awarded ninth place in the LAU Collegiate Programming Contest 2019 in Java.
Visualisation tools: Tableau Public, Cytoscape, Gephi.
Database tools: SQL, BigQuery (completed online Specialization From Data to Insights with Google Cloud).
Hard skills: Data Driven Design Thinking, Data Visualization, Script Programming, Quantitative Analysis, Statistics.
Languages: Fluent in both Arabic and English, Intermediate in French.
