# Alireza Ghorbani

## Curriculum Vitae

#### Education

- 2024-2026 **M.Sc. in Epidemiology**, Ludwig-Maximilian University, Munich, Germany. (Expected)
- 2014–2016 M.Sc. in Mathematical Statistics, Shahid Beheshti University, Tehran, Iran.
  - Thesis: Analysis of High Dimensional Data Using Rayleigh Quotient Optimization (in Persian) under supervision of Prof. Faridrohani & prof. Hamedani
- 2009–2014 **B.Sc. in Statistics**, Shahid Chamran University, Ahwaz, Iran.
  - Thesis: Statistical Study for The Factors Contributing to The Academic Failure among A Group of Undergraduate Students (in Persian) under supervision of Prof. Zadkarami
- 2006–2008 **High School & Pre-University Diploma in Mathematics and Physics**, Shahid Beheshti High School, Birjand, Iran
  Affiliated with the National Organization for Development of Talented Students (NODET)

#### Publication

- 2024+ Enhanced Multi-Criteria Decision Making using Generalized Linear Models and Augmented Feature Space (Case study: Water Pipeline Routing), Under Review
- 2024+ Optimizing Water Pipeline Route Selection Using a Sparse Deep Neural Network and the Fuzzy VIKOR Method (case study: water pipeline transmission), Under Review
  - 2024 Longitudinal Supply Chain Monitoring using Generalized estimating equation and Joint Optimization method (A case study in the Personal Care Industry), Accepted

# Teaching and Professional Experience

- 2021 2024 **Data Science Senior Specialist**, *R&D Department*, *Sarrin Roya*, Tehran, Iran. I support the R&D department's ambitions in data analytics, predictive modeling, and data quality improvements.
- 2022 − 2023 **Statistics & Machine Learning Instructor**, *tearnix.ir*, Tehran, Iran. I taught online courses on statistics, machine learning, and R programming language in Persian at learnix.ir, using interactive videos, quizzes, exercises, and projects to engage and assess learners.

### Honors and Awards

- 2014 Ranked 9<sup>th</sup>, in the 19th National Scientific Olympiad (Statistics)
- 2014 Ranked 19<sup>th</sup>, in the National Entrance Exam for Masters of Science in Actuarial Statistics, Social & Economic Statistics and Theoretical Statistics
- 2003 & 2005 Selected for study in schools of the National Organization for Development of Exceptional Talents (NODET) through an exam with less than 1% acceptance rate.

#### Research Interests

- Statistical Learning
- Genetic Epidemiology

- High Dimensional Statistics
- Bayesian Statistics

# Extracurricular Activities & Professional Certificates

- Bayesian Statistics Specialization
  - University of California, Santa Cruz
- Machine Learning Specialization
  - Stanford University & @ deeplearning.ai
- Natural Language Processing Specialization
   deeplearning.ai
- Statistics with Python Specialization
   University of Michigan

- Practical Time Series Analysis
   The State University of New York
- Deep Learning Specialization
   deeplearning.ai
- Fundamentals of Reinforcement Learning
   University of Alberta
- Python 3 programming Specialization
   University of Michigan

### Technical skills

R Programming, 👶 Python , 📣 Matlab, 🗟 SQL, LATEX, 🔆 Open BUGS

## Languages

English: FluentGerman: Elementary