



Ramin Yazdani

BIOTECHNOLOGIST · DEVELOPER · DATA SCIENTIST · BIOINFORMATICIAN

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Education

Saarland University

MASTER'S IN BIOINFORMATICS

Saarbrücken, Germany

2024-10-20 - present

University of Tehran

MASTER'S IN BIOTECHNOLOGY (INDUSTRIAL AND ENVIRONMENTAL)

Tehran, Iran

2021-09-22 - 2024-09-15

Islamic Azad University, Roudehen Branch

BACHELOR'S IN BIOTECHNOLOGY

Roudehen, Iran

2017-09-23 - 2021-07-22

Karaj Soltani 1 School

PRE-UNIVERSITY IN NATURAL SCIENCES

Karaj, Iran

2014-09-23 - 2015-09-22

Karaj Soltani 1 School

HIGH SCHOOL IN NATURAL SCIENCES

Karaj, Iran

2011-09-23 - 2014-06-22

Experience

Full-stack Developer

FREELANCE

2018-02-11 - Recent

- Developed and maintained diverse web applications, backend & frontend components, and automated data workflows.

Bioinformatics Researcher - Master's Thesis

UNIVERSITY OF TEHRAN

2023-10-23 - 2024-09-15

- Omics-Based Analysis of Microbial Genomes/Fermentation and Bioprocessing
- Performed bioinformatics analyses, gene expression profiling, functional annotation, and bioprocess optimization.

Co-Founder & Business Development Lead

KAMADANI FOODSTUFF TRADING LLC

2022-07-14 - 2023-07-13

- Company Establishment & Business Development
- Co-founded and established the company, led business development and partnerships.

Research Assistant - Biotechnology Laboratory / Fermentation Engineering

UNIVERSITY OF TEHRAN / RAHPOUYAN FANAVAR SADEGH

2023-01-21 - 2023-09-22

- Fed-batch Optimization & Bioprocess Engineering
- Worked on Pichia pastoris fermentation optimization and bioprocess engineering projects.

Management Board Member

YAZDAN TEJARAT ABSARAN

2009-04-25 - 2023-10-23

- Export, Import, and Business Management
- Oversaw operations, strategic planning, and business development for the family trading business.

Publications

Antibacterial effects of Vancomycin/Ziziphus-encapsulated niosome nanoparticles against vancomycin-resistant Enterococcus faecium clinical isolates

RESEARCH PAPER — WAITING FOR SUBMISSION

n.d.

- Authors:** Rysan Jabr Kadhim Alboughanimeh, et al.

Recent Advances in Conventional and Modern Waste Treatment Approaches [\[LINK\]](#)

BOOK CHAPTER

n.d.

- **Authors:** Ramin Yazdani, et al.
- **Publisher:** Taylor & Francis

Ceftazidime-loaded niosomes as a great antibacterial agent against biofilm-formed *Pseudomonas aeruginosa* clinical isolates

RESEARCH PAPER — WAITING FOR SUBMISSION

n.d.

- **Authors:** Yaqoob Thajil Al-Bozouni, et al.

BCL-2 mediated apoptotic pathway as a promising target for bio-synthesized silver nanoparticles: review article

REVIEW ARTICLE — WAITING FOR SUBMISSION

n.d.

- **Authors:** Pooria Moulavi, et al.

Omics-Based Analysis and Gene Profiling to Identify *Lactobacillus* Strains for Modulating HDL/LDL Ratios in Pharmaceutical Applications

University of Tehran

MASTER THESIS — SUBMITTED

2024

- **Authors:** Ramin Yazdani
- **Degree:** Master's thesis
- **Affiliation:** Faculty of New Sciences and Technologies, School of Life Science Engineering

Languages

Farsi — Native (*Mother tongue*) [Mother Tongue]

English **C1** — Professional (*Fluent*) [IELTS Academic •8.0/9.0 • R 9.0, L 8.5, W 6.5, S 7.0 • 2023-12-28]

German — Beginner (*Studying*)

Workshops & Certifications

Tuf North Academy

2020-9-31 **Microarray Data Analysis in R Software and Systems Biology** [\[LINK\]](#), (18 hours) [Certification](#)

2021-04-10 **Bioinformatics of Proteins, Molecular Dynamic Simulation, and Vaccine Design** [\[LINK\]](#), (58 hours) [Certification](#)

ICAD Academy International

2023-12-08 **GLP** [\[LINK\]](#), (16 hours) [Certification](#)

Rahpouyan Fanavar Sadegh

2023-12-09 **Biosafety, biosecurity, and biological risk** [\[LINK\]](#), (8 hours) [Workshop](#)

2023-12-20 **GMP in drug industry**, (90 hours) [Workshop](#)

2024-02-25 **Fermentation process of heterologous protein production**, (20 weeks) [Workshop](#)

University of Tehran

2023-09-13 **Histological Techniques and Equipment** [\[LINK\]](#), (15 hours) [Certification](#)

2023-09-10 **Fundamental Principles of Molecular Testing Techniques** [\[LINK\]](#), (45 hours) [Certification](#)

2023-09-20 **Fundamental Techniques for Handling, Bleeding, and Injection of Lab Animals** [\[LINK\]](#), (6 hours) [Certification](#)

2023-09-20 **Applied Bioinformatics** [\[LINK\]](#), (10 hours) [Certification](#)

2023-09-15 **Fundamental Principles of In Vitro Cell Culture Techniques** [\[LINK\]](#), (10 hours) [Certification](#)

2023-09-17 **Introduction to Microbiological Lab Techniques** [\[LINK\]](#), (10 hours) [Certification](#)

Actin Academy

2024-06-06 **ChIP-Seq Data Analysis**, (12 hours) [Workshop](#)

2024-03-14 **Online Databases**, (8 hours) [Workshop](#)

2024-04-04 **Genomic Data Analysis**, (24 hours) [Workshop](#)

2024-04-15 **Microarray Data Analysis**, (16 hours) [Workshop](#)

2024-04-22 **Single Cell RNA Sequencing**, (12 hours) [Workshop](#)

2024-04-29 **Bulk RNA Sequencing**, (12 hours) [Workshop](#)

2024-05-06 **Proteomics Data Analysis**, (16 hours) [Workshop](#)

2024-06-27 **Machine Learning**, (20 hours) [Workshop](#)

2024-05-27 **Metagenomic Data Analysis**, (12 hours) [Workshop](#)
 2024-02-19 **Precision Medicine Biological Systems**, (8 hours) [Workshop](#)
 2024-06-10 **Gene Regulatory Network Analysis**, (8 hours) [Workshop](#)
 2024-06-13 **Complex Biological Network Analysis**, (20 hours) [Workshop](#)
 2024-05-20 **Metabolic Network Reconstruction**, (20 hours) [Workshop](#)
 2024-03-04 **Introduction to Big Biological Data**, (8 hours) [Workshop](#)
 2024-07-04 **Docker and Visualization**, (8 hours) [Workshop](#)

Maktab Sharif Academy

2023-01-18 **Python & Django** [\[LINK\]](#), (400 hours) [Certification](#)

Maktabkhooneh

2020-09-18 **Front-End Web Development and Design** [\[LINK\]](#), (70 hours) [Certification](#)
 2020-07-23 **Python Programming for Beginners** [\[LINK\]](#), (57 hours) [Certification](#)
 2021-12-11 **Advanced Python Programming** [\[LINK\]](#), (57 hours) [Certification](#)

Daneshjooyar

2021-11-09 **UI/UX**, (30 hours) [Workshop](#)

Hamrah Academy

2023-07-15 **Fundamentals and Roadmap of Data Science** [\[LINK\]](#), (3 hours) [Certification](#)
 2023-09-01 **Mathematics for Data Science and Artificial Intelligence** [\[LINK\]](#), (8 hours) [Certification](#)
 2023-09-05 **Data Mining and Business Intelligence with KNIME** [\[LINK\]](#), (6 hours) [Certification](#)
 2023-09-12 **Comprehensive Python Programming** [\[LINK\]](#), (12 hours) [Certification](#)
 2023-10-22 **Data Visualization Tools** [\[LINK\]](#), (5 hours) [Certification](#)
 2023-10-19 **Introductory Database Principles** [\[LINK\]](#), (10 hours) [Certification](#)
 2023-11-01 **Data Mining with Python** [\[LINK\]](#), (8 hours) [Certification](#)

Faradars

2024-03-18 **Linear Algebra Toward Data Science**, (60 hours) [Workshop](#)

Skills

PROGRAMMING & SCRIPTING

Programming Languages

Python,R,C++,JS

Machine Learning & Data Science

Supervised/Unsupervised,Model Metrics,Cross-Validation,Hyperparameter Tuning,Feature Engineering,TensorFlow,PyTorch,Transformers,ML Pipelines,Dim. Reduction,Deep Learning, Regularization,Explainability

Scripting & Automation Tools

Bash,Selenium,Web Automation & Crawling,Shell,Conda,venv

DEVOPS & INFRASTRUCTURE

Networking & Protocols

Protocols,OSI/TCP-IP,IP/Subnetting,Routing/Switching,VPN/Tunneling,Firewall & ACL,Proxies & LB,DNS/DHCP,Sockets,Diagnostics,Traffic Analysis,Performance Tuning,IoT & Embedded

DevOps Tools & CI/CD Pipelines

Pipeline Design,Git,n8n,CI/CD

Cloud Platforms & Authentication

Firebase Auth,Azure

Containerization & Orchestration

Docker,K8s

System Administration & Linux Tools

Linux CLI

SOFTWARE & WEB DEVELOPMENT

Frontend Frameworks & UI Technologies

HTML,CSS,React,Tailwind,Bootstrap

Backend Development & APIs

Node.js,Express,Flask,Django,FastAPI,REST APIs

DATABASES & DATA ENGINEERING

Database Modeling & Optimization

DB Concepts,ORM,ERD Modeling,Indexing & Queries,ACID,Schema Design,Backup & Recovery

SQL Databases

PostgreSQL,MySQL,SQLite

NoSQL Databases

MongoDB,Redis

Data Pipelines & ETL Systems

Knime

DATA VISUALIZATION & REPORTING

Scientific Plotting Tools

Matplotlib,Seaborn,Plotly,ggplot2,Jupyter,RMarkdown,LaTeX

Dashboarding & Reporting Platforms

Power BI,Tableau,Dashboards

Visual Analytics & Network Tools

NetworkX,Graphviz

BIOINFORMATICS DOMAINS

Statistical Modeling & Machine Learning in Bioinformatics

scikit-learn,GSEA,FDR,Elastic Net,LASSO,XGBoost,CCA,WGCNA,Regularization,Fine-Tuning,Model Eval

Genomics & Genome Assembly

FASTQC,Bowtie2,BWA,HISAT2,Kallisto,BUSCO,Quast,Library Prep

Transcriptomics & Single-Cell Analysis

DESeq2,edgeR,limma,DoubletFinder,ArchR,10x Visium,Seurat,Cell Ranger,CytoSPACE,Hist2ST

Metagenomics & Microbial Ecology

eggNOG,MetaPhlAn,QIIME2,Kraken2

Functional Annotation & Systems Biology

GO,Enrichr,BioCyc,Cytoscape,KeGG

Protein Structure & Structural Bioinformatics

AlphaFold,Modeller,SwissModel,HHpred,HMMs,TmHMM,Rosetta

Phylogeny & Comparative Genomics

BLAST,Clustal,OrthoFinder

LABORATORY TECHNIQUES

Molecular & Microbial Biology Techniques	DNA/RNA Extraction,PCR/qPCR,Gel Electrophoresis,Electroporation,Gram Staining,Media Prep, Contamination Control,AST,Biochemical ID,Broth Culture,Aseptic Technique,Cell Counting,Cell Authentication,Cryopreservation,Cell Culture,Western Blot,Chem Handling,Pipetting
In Vivo & Ex Vivo Experimental Protocols	Animal Handling,Anesthesia,Gavage,Blood Draw,Enrichment,Euthanasia,Ethics
Experimental Design & Laboratory Documentation	DoE,SOP Compliance,RSM
Analytical Instruments & Chromatography	2D-PAGE,ELISA,FACS,Confocal Scope,Fluoro Scope,AAS,CE,Cond. Meter,HPLC,Chromatography, UV-Vis/FTIR
Bioprocess & Bioreactor Engineering	Reactor Modes,Airlift BioR,Agitation/Foam,Feed Control,HCDC,MFA,DFBA,Wet Wt,Centrifug./Filt., Metabolic Eng.,Scale-Up,Monitoring Tools,Bio/pH-stat
Lab Safety, Compliance & Regulatory Practices	GLP,GMP,Biosafety,QA/QC,R&D Rules

SOFT SKILLS

Core Soft Skills	Analytical Thinking,Problem-Solving,Team Collaboration,Project Management,Scientific Writing, Adaptability & Learning,Time Management,Interdisciplinary Communication,Research & Analysis,Self-Motivation
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Projects

Integrated Omics Pipeline for Microbial Genomics

BIOINFORMATICS

- Developed a comprehensive pipeline integrating metagenomic, transcriptomic, and proteomic data for functional gene analysis and microbial community profiling.

Single-Cell & Spatial Transcriptomics Workflow

BIOINFORMATICS

- Implemented analysis workflows for single-cell RNA-seq and spatial transcriptomics data, enabling cell type identification and trajectory inference.

Bioprocess Optimization for Protein Production

BIOTECHNOLOGY

- Optimized fed-batch fermentation processes for heterologous protein expression in *Pichia pastoris*, including pathway engineering and bioreactor management.

Automation & Web Data Extraction Solutions

PROGRAMMING

- Designed and deployed Python-based web crawlers and automation scripts for data extraction, cleaning, and processing from diverse online sources.

Full-Stack Web Application for Data Visualization

PROGRAMMING

- Built interactive dashboards and visualization tools using Django, React, and Plotly for scientific data representation and reporting.

Machine Learning Applications in Bioinformatics

PROGRAMMING | BIOINFORMATICS

- Developed predictive models and clustering algorithms for biological data analysis, focusing on gene expression and classification tasks.

Containerized Bioinformatics Workflows

BIOINFORMATICS

- Deployed reproducible bioinformatics pipelines using Docker and Kubernetes for scalable and collaborative research environments.

CI/CD Pipeline Implementation for Web Applications

PROGRAMMING

- Configured and automated continuous integration and deployment pipelines using GitLab CI/CD and Docker for web applications, ensuring robust delivery workflows.

Backend API Development for Data-Driven Applications

PROGRAMMING

- Designed RESTful APIs with Django Rest Framework and FastAPI to serve as backends for data-driven applications, focusing on performance and scalability.

Real-Time Data Visualization Dashboard

PROGRAMMING | BIOINFORMATICS | BIOTECHNOLOGY

- Developed a real-time dashboard for monitoring and visualizing streaming data using React, WebSockets, and Plotly for interactive user experience.

Full-Stack E-commerce Web Platform

PROGRAMMING

- Built a scalable e-commerce platform integrating user management, product catalogs, and payment systems using Django, React, and PostgreSQL.

Linux System Automation & Monitoring Scripts

PROGRAMMING | BIOINFORMATICS

- Created Bash and Python scripts for automating server maintenance tasks, log management, and resource monitoring on Linux-based systems.

Cloud-Based Microservices Deployment

PROGRAMMING

- Implemented microservices architecture and deployed containerized services on cloud infrastructure using Docker and Kubernetes.

Robotics & Embedded Systems Developer — High School & Personal Projects (2011–2015)

ROBOTICS | EMBEDDED SYSTEMS | STUDENT PROJECTS

- Microcontroller programming and robot development for student competitions; designed and built embedded robotics systems and control logic.

References

Wissenschaftliche Mitarbeiterin / Researcher — Department of Developmental Neuropsychology

University of Trier, Trier, Germany

SHOKOUH SHOMEIL ZADEH SHOUSHTARI

- Email: Shoushtari@uni-trier.de

Assistant Professor, Biochemist, Member of AAUP — Department of Biotechnology

Islamic Azad University, Roudehen Branch, Roudehen, Iran

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PROF. SIMIN NABIZADEH

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- [LETTER]

Bioprocess Engineering, R&D Specialist at RFS

Tarbiat Modares University, Tehran, Iran

DR. MOHAMMAD AMIN BOOJARI

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- [LETTER]