# Rastin Maleki

Rasht, Guilan, Iran

#### **EDUCATION**

#### **University of Guilan**

Rasht, Guilan, Iran

Bachelor of Science, Computer Engineering

September 2021 - September 2025

- GPA: 18.80/20 (3.83/4), Last two years GPA: 19.43/20 (4/4)
- Ranked 6th out of 61 graduating students

#### RESEARCH INTERESTS

$\hfill\Box$ Computational Linguistics	☐ Deep Learning in Smart Environments, Robotics and IoT Systems
$\square$ Generative AI $\square$ I	Predictive Condition Monitoring and Machinery Fault Detection

#### PUBLICATIONS AND RESEARCH EXPERIENCE

• M. Amin Rezanezhad, Rastin Maleki, Sepehr Rezaii Melal, Mahdi Aminian, and S. M. Shekarian. "Modeling the Prediction of Indoor Humidity and Temperature in Smart Greenhouses by Combining LSTM and IoT"

In progress

Collaborating in a research project focused on combining IoT systems with LSTM models to predict indoor humidity and temperature.

 Fatemeh Ahmadi, Anita Kamani, Rastin Maleki, Pooya Kazemian, Yasaman Boreshban and S. A. Mirroshandel. "Finding Common Ground: Annotating and Predicting Common Ground in Spoken Conversations"

In progress

Collaborating in a research project focused on building a Persian dataset for understanding and predicting common ground in conversations, aiming to improve the quality of Persian conversational AI. We are using LLMs to evaluate their effectiveness in capturing common ground between speakers, providing a baseline for future research.

Rastin Maleki, Mahdi Aminian. "PolySilicon and Metal - A Glimpse on MOSFETs Design Challenges."
[PDF] github.com

Research Report

Conducted a research report exploring the changes in MOSFETs' gate electrode material throughout time as the final research project for both Research Methodologies and AVLSI courses. Through this project, I learned how to properly write academic content following proper formatting, creating figures, and managing references.

#### TEACHING ASSISTANCE EXPERIENCE

# **Teaching Assistant**

**University of Guilan** 

Multiple Courses

September 2021 - September 2025

Participated in more than six courses, chosen for my academic excellence, strong communication skills, and proficiency in providing instructional support. Designed and assessed students' assignments and projects, provided complementary materials and conducted weekly troubleshooting sessions.

- · Head Teaching Assistant, Data Structures, Instructed By Dr. S. A. Mirroshandel
- Head Teaching Assistant, Discrete Mathematics, Instructed By Dr. S. M. Shekarian
- Teaching Assistant, Advanced Programming, Instructed By Dr. S. A. Mirroshandel
- Teaching Assistant, Fundamentals of Computer Programming, Instructed By Dr. S. M. Shekarian
- · Teaching Assistant, The Theory of Formal Languages and Automata, Instructed By Dr. S. M. Shekarian
- Teaching Assistant, Electronic Circuits, Instructed By Dr. Mahdi Aminian

# SELECTED COURSES

□ Deep Learning: 19 □ Engineering Probability and Statistics (Data Science): 20 □ Data Structures: 20 □ Natural Language Processing: 20 □ Advanced Programming: 20 □ Algorithms Design: 19.91 ☐ Artificial Intelligence: 19.21 ☐ Signal and Systems: 19.5 ☐ AVLSI System Design: 20

# **SKILLS & TECHNOLOGIES**

**Programming Languages** : Python, Java, C++, VHDL

PyData Ecosystem & ML : PyTorch, TensorFlow, Scikit-Learn, NLTK, Spacy, Hugging Face

: Arduino IDE, MQTT, Node Red, Thingspeak **IOT & Micro Controllers** : Proteus, LEDIT, Intel Quartus, ISE Xilinx Hardware Design **Databases** : SQL server, MySQL, ER Diagram Design Other Technologies : Git, LTFX, Microsoft Office, Cisco Basics, PyQT

**Computer Science** : Deep Learning, Data Science, Data visualization and storytelling, Statistics,

Building and fine-tuning models, RAGs, Data Structures and Algorithms, OOP

programming

: Problem Solving, Problem Designing, Teaching, Presentation, Documentation Non-Technical

## Professional Experience

#### **Python Developer**

Remote | Mashhad, Razavi Khorasan SeeNous 🔀 Since January 2025

• Trained deep learning models for fault detection in industrial machinery trained on vibration data.

• Built desktop applications and dashboards tailored to company requirements using Python.

• Developed data cleaning pipelines.

• Integrated a Motion Detection and Amplification feature into the company's product.

• Collaborated in daily Scrum meetings, weekly sprint plannings, and OKRs.

## **Freelance English Translator**

Java, Java Swing, GUI, OOP

Remote

GameSub 🔼

October 2019 to October 2024

- Translated in-game text and dialogue from English to Farsi while contributing to the development of translation mods sold to the Persian video game community. Translated more than 1.4 million words.
- Enhanced skills in translating colloquial speech, while collaborating within a professional team environment.

# SELECTED PROJECTS ( MORE PROJECTS ON GITHUB )

#### QA and RAG on Guilan Food Recipes 🔀 September 2025 PyTorch, Fine-Tuning, RAG ELVA: Embedded Language Model and Virtual Assistant 🔀 January 2025 IoT, ESP32, Python, C, Hugging Face, LLM, TTS, STT Website Traffic Prediction November 2024 Python, Data Science, Machine Learning, Classification Algorithms, Presentation and Documentation Product Sales Analysis 🗹 October 2024 Python, Data Analysis, Exploratory Data Analysis, Presentation and Documentation Physical Layout for Two Bit Comparator Using L-EDIT IC Winter 2024 L-EDIT, Physical Layout, VLSI Design NeonBlaster: An Arcade Shooting Game on FPGA Fall 2023 Cyclone® V FPGA, VHDL, Quartus Prime Bomber Friends Game 🔀 Spring 2022

#### SELECTED CERTIFICATIONS

Natural Language Processing Specialization (5 Courses)

Machine Learning, Natural Language Processing, Text Mining

Exploratory Analysis, Statistical Experimentation, Model Development, Communication and Reporting

September 2025

Coursera | DeepLearning.AI

Coursera | DeepLearning.AI

August 2025

Machine Learning Specialization (3 Courses)

Python for Everybody Specialization (5 Courses)

Machine Learning, Deep Learning, Reinforcement Learning, Data Ethics

Coursera | University of Michigan

Web Scraping, Databases, Programming Principles, File Management, Data Cleansing

July 2025 **DataCamp** 

Data Scientist Certificate (Manually Graded Practical Exam) 🌞

November 2024

Data Analyst Certificate (Manually Graded Practical Exam)

**DataCamp** 

Analytic Fundamentals, Exploratory Analysis, Data Management, Visualization and Reporting

October 2024

Data Engineer Certificate (Manually Graded Practical Exam)

**DataCamp** 

Programming for Data Engineering, Data Management, Exploratory Analysis

October 2024

**SQL Associate Certificate** 

**DataCamp** 

Exploratory Analysis, Data Management

October 2024

# Honors and Awards

• Ranked 6<sup>th</sup> CGPA among undergraduate students of major (2025).

• Acknowledged as exceptional talent by the University of Guilan for outstanding achievements (2025).

• Achieved 2<sup>nd</sup> place in a university-level programming contest called Guilan CodeCup (2025).

• Designed innovative problems for a university-level programming contest called Guilan ACM (2024).

 Ranked within the top 6% among 127,000 participants in undergraduate Mathematics and Physics Iranian University Entrance Exam (SAT, the US equivalent) (2021).

• Ranked within the top 0.7% among 130,000 participants in undergraduate Foreign Languages Iranian University Entrance Exam (2021).

#### LANGUAGES AND TEST SCORES

Persian: Native **English**: Fluent (Ielts to be taken soon) **GRE**: (To be taken soon)

# REFERENCES

Dr. Seyed Abolghasem Mirroshandel

Associate Professor, University of Guilan

Stony Brooks, USA Email | Home | Scholar

Dr. Seved Mohammad Hossein Shekarian

Assistant Professor, University of Guilan

Rasht, Guilan Email | Home | Scholar

Dr. Mahdi Aminian

Rasht, Guilan

Assistant Professor, University of Guilan

Email | Home | Scholar

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