Rastin Maleki

Rasht, Guilan, Iran

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EDUCATION

University of Guilan   **Rasht, Guilan, Iran**
Bachelor of Science, Computer Engineering   *September 2021 - September 2025*

- **GPA: 18.77/20 (3.81/4)**, Last two years GPA: **19.48/20 (4/4)**
- Ranked 4th out of 61 graduating students

RESEARCH INTERESTS

☐ Computational Linguistics and NLP   ☐ Deep Learning in Robotics and IoT Systems
☐ Generative AI Models   ☐ Deep Learning and Signal Processing   ☐ VLSI Design

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
  Co-authoring a research paper 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. **"PerCG: The Persian Common Ground Dialogue Corpus"**
  Submitted to Language Resources and Evaluation
  Co-authored a research paper focused on building a Persian dataset for understanding and predicting common ground in conversations, aiming to improve the quality of Persian conversational AI. Providing a baseline for future research by evaluating LLMs effectiveness in capturing common ground between speakers.

- **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 AVLSI course. 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: 19   ☐ Advanced Programming: 20   ☐ Algorithms Design: 19.91
☐ Artificial Intelligence: 19.21   ☐ Signals and Systems: 19.5   ☐ AVLSI System Design: 20

SKILLS & TECHNOLOGIES

Programming Languages	:	Python, Java, C++, VHDL
ML and Data Science Tools	:	PyTorch, TensorFlow, Scikit-Learn, NLTK, Spacy, Hugging Face, Tableau
IOT & Micro Controllers	:	Arduino IDE, MQTT, Node Red, Thingspeak
Hardware Design	:	Proteus, LEDIT, Intel Quartus, ISE Xilinx
Databases	:	SQL server, MySQL, ER Diagram Design
Other Technologies	:	Git, LaTeX, Microsoft Office, Cisco Basics, PyQT, Git, Figma
Computer Science	:	Deep Learning, Data Science, Data visualization and storytelling, Statistics, Building and fine-tuning models, RAGs, Data Structures and Algorithms, OOP programming
Non-Technical	:	Problem Solving, Problem Designing, Teaching, Presentation, Documentation

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.

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**
Java, Java Swing, GUI, OOP

SELECTED CERTIFICATIONS

Machine Learning Specialization (3 Courses) ✴️   **Coursera | DeepLearning.AI**
Machine Learning, Deep Learning, Reinforcement Learning, Data Ethics   *August 2025*

Python for Everybody Specialization (5 Courses) ✴️   **Coursera | University of Michigan**
Web Scraping, Databases, Programming Principles, File Management, Data Cleansing   *July 2025*

Data Scientist Certificate (Manually Graded Practical Exam) ✴️   **DataCamp**
Exploratory Analysis, Statistical Experimentation, Model Development, Communication and Reporting   *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 4th CGPA among undergraduate students of major (2025).
- Acknowledged as exceptional talent by the University of Guilan for outstanding achievements (2025).
- Achieved 2nd 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   **Rasht, Guilan**
Associate Professor, University of Guilan   *Email* | *Home* | *Scholar*

Dr. Seyed Mohammad Hossein Shekarian   **Rasht, Guilan**
Assistant Professor, University of Guilan   *Email* | *Home* | *Scholar*

Dr. Mahdi Aminian   **Rasht, Guilan**
Assistant Professor, University of Guilan   *Email* | *Home* | *Scholar*