

# Saeed MOZAHEB

## PERSONAL INFORMATION:

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**Address:** Department of Physics, Sharif University of Technology, Tehran, Iran

**Date of Birth:** April / 7 /1997

**Place of Birth:** Tehran

**Marriage Status:** Single

**Citizenship:** Iranian

## EDUCATION:

**Master of Science – Physics**

2020 - 2023

Sharif University of Technology

Thesis: “Data Analysis of Gaia and OGLE Projects and Determination Properties of Gravitational Microlensing”

Supervisor: Prof.Dr. Sohrab Rahvar

Field of Study: Gravitational Microlensing, Data Analysis in Astronomy

**Bachelor of Science – Mechanical Engineering**

2015 - 2019

Amirkabir University of Technology

Thesis: “Modeling of Motorcycle and Tire Contact Analysis”

Supervisors: Prof.Dr. Mansour Kabganian , Dr. Ali Azimi

Field of Study: System Dynamics, Contact Mechanics

## RESEARCH INTERESTS:

- Gravitational Lensing
- Galaxy Formation, Evolution, and dynamics
- Observational Astronomy
- Data Analysis in Astronomy
- Interpretative Astronomy

## PUBLICATIONS:

- “Cross-Matching of OGLE, GAIA, and Hubble Catalogs: Evaluating the Probability of Resolving Lens Stars in Microlensing Events” S. Mozaheb , S. Rahvar, Initial submission in the MNRAS journal [first draft arxiv](#)

## RELEVANT COURSES:

- **M.Sc.:** Astrophysics I (19.5/20) – Astrophysics II (20/20)  
Physics of the Sun (18/20) – Master Seminar (19.5/20)
- **B.Sc. :** Dynamics I (19.5/20) – Mechanism Dynamics (17.8/20)  
C Programming (15/20)

## ACADEMIC RECOMMENDATIONS:

- Prof.Dr. Sohrab Rahvar form Sharif University (My Master Thesis Supervisor): [rahvar@sharif.edu](mailto:rahvar@sharif.edu)
- Prof.Dr. Fatemeh Tabatabaei from IPM (Institute For Research In Fundamental Sciences) : [ftaba@ipm.ir](mailto:ftaba@ipm.ir)
- Dr. Hossein Moshafi From IPM(Institute For Research In Fundamental Sciences) : [moshafi@ipm.ir](mailto:moshafi@ipm.ir)

## Programming Skills:

- **Python** : Data Science Libraries: Numpy/Pandas/Scikit-Learn/Matplotlib/Seaborn  
Astronomy Libraries: Astropy/Astroquery
  - I implemented the Master final project with Python (over 2000 lines)
  - I worked as freelance python programmer for one year
- **C** : Basic Knowledge
- **Linux**: GNU Astronomy Utilities

## LANGUAGE SKILLS:

- **English**: Fluent (C1) – IELTS band score : 7 [Certificate](#)
- **Persian**: Native Language
- **German**: A1

## CERTIFICATIONS:

- **Data-Driven in Astronomy** (University of Sydney) [Certificate](#) 2023  
Online Coursera Course (Score 98 / 100)
- **Python Programming** [Certificate](#) 2021  
Online Maktabkhooneh Course (score 95/100)

## CONFERENCES:

- **Participation in the 25<sup>th</sup> Iran Astronomy Research Conference** [Certificate](#) 2023  
Institute for Advanced Studies in Basic Sciences – Zanjan University
- **Presented speech “Data Analysis and Simulation of Separation in Gravitational Lensing Events”** [Certificate](#) 2024  
17<sup>th</sup> National Conference on Astrophysics – Shahid Beheshti University
- **Participation in the 26<sup>th</sup> Iran Astronomy Research Conference** 2024  
Institute for Advanced Studies in Basic Sciences – Zanjan University

## HONORS AND AWARDS:

- **Ranked 38 Among More Than 3500 Participants** 2020  
Iranian Masters Entrance Exam in Physics
- **Awarded Bronze Medal** 2012  
National Astronomy and Astrophysics Olympiad
- **Honored as The Most Successful Student** 2019  
Royesh University Event – Amirkabir University of Technology

## ACADEMIC PROJECTS, INVESTIGATIONS AND SEMINARS:

- **“Review of Research: The True Column Density Distribution in Star-Forming Molecular Clouds”**, Radio Astronomy Course Seminar First Semester 2022 - 2023
- **“OGLE Observatory and How We Can Cross-Match Two Catalogs”** First Semester 2022 - 2023  
Final Examination of Seminar Course
- **“Searching for New Homes, An Introduction to Exoplanets”** Second Semester 2021 - 2022  
Astrophysics I Course Seminar
- **“CanadArm Mechanism Design and Modeling”**, Design of Mechanism First Semester 2018 - 2019  
Course Final Project
- **“Three-Body and N-Body Restricted Problem”**, Dynamics Seminar Second Semester 2017 - 2018

## WORK EXPERIENCES:

### ▪ Astronomy Teacher

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|------------------------------------------------------------------------|-------------|
| Head of Celestial Mechanics Department                                 | 2024        |
| Young Scholars Club (YSC - Iran National Organization of the Olympiad) |             |
| Head of Astronomy and Astrophysics Olympiad Department                 | 2019 – 2024 |
| Iranian Young Scholars Club (IRYSC)                                    |             |
| Astronomy Teacher                                                      | 2015 – 2024 |
| National Organization for Development of Exceptional Talents (Sampad)  |             |
| Astronomy Teacher                                                      | 2019 - 2021 |
| Iran Astronomy Association                                             |             |
| TV Science Program Expert                                              | 2020 - 2022 |
| Iranian Radio and Television                                           |             |

### ▪ Teacher Assistant

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|--------------------------------------------------|------|
| Dynamic I & II – Instructor: Prof. Dr. Kabganian | 2018 |
| Amirkabir University of Technology               |      |

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## LEADERSHIP EXPERIENCES:

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|---------------------------------------------------------------------------|-------------|
| ▪ Head of Astronomy Society                                               | 2018 – 2019 |
| Cultural and scientific centers of the Amirkabir University of Technology |             |
| ▪ Vice President of Cultural and Scientific Centers                       | 2019 – 2020 |
| Cultural and scientific centers of the Amirkabir University of Technology |             |

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## MEMBERSHIPS:

- Astronomical Society of Iran (ASI)

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## PROGRAMMING AND SOFTWARE SKILLS:

- Python Programming
- C Programming
- GNU Astronomy Utilities
- Matlab
- Tex/Latex
- FITS Files Managing: DS9, Fits Liberator
- Aladin, Starry Night
- Graphic Designing: Adobe Photoshop, Illustrator

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## HOBBIES:

- Design Graphical Arts