

# Siavash Sabzy

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[R<sup>g</sup> ResearchGate](#)  
[Github](#)  
Date of Birth: Sep, 14, 1993



## Curriculum Vitae

### Research Interests

Astrodynamics  
Three-Body Problem

Guidance, Navigation and Control (GNC)  
Machine Learning

### Education

- **Master of Science** **Satellite Technology Engineering**  
**Iran University of Science and Technology, Tehran, IR** **Sep. 2017 - Jan. 2020**  
Thesis: "Coupled Orbit and Attitude Dynamics of a Spacecraft in the Ecliptic Restricted Three Body Problem"
- **Bachelor of Science** **Mechanical Engineering**  
**Shahid Rajaee University, Tehran, IR** **Jan. 2013 - Jan. 2017**  
Thesis: "Vibration Analysis of a Rotary Shaft with Rigid or Flexible Bearings by Considering the Rotor Gyroscopic Effects"

### Work Experiences

- **Pishtazan Sanat Faza Pooyan Company** - Tehran, Iran **Researcher**, Nov. 2021 - Jun. 2025
  - Software Developer
  - Geodesy Expert
- **Ministry of Education, Aligodarz District** - Lorestan, Iran **Teacher**, Feb. 2013 - Jun. 2020
  - Automotive Gasoline Engines Workshop
  - Automotive electrical workshop

### Publications

#### Journals:

- **Siavash Sabzy**, Majid Bakhtiari, Elyas Rashno **"Distinguishing Periodic Attitude Motions from Poincaré Sections Using a Compatible Clustering Method"**, Nonlinear Dynamics, Springer.
- **Siavash Sabzy**, Kamran Daneshjou, Majid Bakhtiari **"Periodic attitude motions along planar orbits in the elliptic restricted three-body problem"**, Advances in Space Research, Elsevier.
- Majid Bakhtiari, Ehsan Abbasali, **Siavash Sabzy**, Amirreza Kosari **"Natural Coupled Orbit-Attitude Periodic Motions in the Perturbed-CRTBP including Radiated Primary and Oblate Secondary"**, Astrodynamics journal, Springer.

### Online Courses

- Machine Learning offered by Stanford University
- Reinforcement Learning Specialization offered by University of Alberta
- Spacecraft Dynamics and Control Specialization offered by University of Colorado Boulder

### Language Skills

- **English** Fluent  
**TOEFL**: 104, (R:27, L:30, S:24, W:23)  
- **Appointment Number**: 7574603249657141

- **Test Date:** March 02, 2024

- **Persian** Native

## Programming and Software Skills

### Programming Languages

- Matlab
- Python: Numpy, conda-orekit, pyqt5, pymoo, pandas
- Java: JavaFx, orekit

### Software

- GMAT: General Mission Analysis Tool
- SPENVIS: Space Environment Information System
- ESA MASTER tool
- ESA DRAMA tool

### General Softwares

- Git
- LaTeX
- Microsoft Office

## References

- **Dr. Bahman Ghorbani Vaghei**  
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