

## Soroush Mehraban

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Computer Engineering (CE) Department  
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### RESEARCH INTEREST

- **Computer Vision**
- **Natural Language Processing**
- **Reinforcement Learning**
- **Deep Learning**
- **Machine Learning**

### EDUCATION

- **Amirkabir University of Technology** (Tehran Polytechnic), Tehran, Iran
  - **B.Sc.**, Computer Engineering — *Sep. 2017 - now (expected graduation date: July, 2022)*  
GPA: **19.07** / 20 (**4.00**/4.00)
- **Farabi High School**, Tehran, Iran
  - **Diploma**, Mathematics & Physics Field — *Sep. 2013 - June. 2016*  
GPA: **19.72** / 20

### SKILLS

**Programming Languages:** Python (Advanced), Java (Intermediate), C (Intermediate).

**Libraries:** PyTorch (Beginner), NumPy (Intermediate), pandas (Intermediate), Matplotlib (Intermediate).

**Database Systems:** MySQL (Intermediate).

**Operating Systems:** Windows, Linux (Ubuntu).

**Web Development:** HTML, CSS, JavaScript, Bootstrap, JQuery, Django, Angular, ORM.

**Code Versioning Tools:** Git.

### SELECTED PROJECTS

- **DCGANs**  
Implemented DCGANs paper using CelebA dataset with documentation.  
Code with documentation on github
- **Handwritten Digit Recognition**  
Implemented a fully-connected neural network with two hidden layers (without using any library) to detect handwritten digit images.  
Code with documentation on github
- **Poet detection using NLP**  
Detected poet of a poem with an average accuracy of 83% using bigram and unigram language models and back-off model as a smoothing technique.  
Code with documentation on github
- **Evolutionary Games**  
Implemented an agent for a simple 2D minigame to maneuver via neural network + evolution.  
Code on github

	<ul style="list-style-type: none"> <li>• <b>Fuzzy C-Means Clustering</b> Clustered multi-dimensional datasets using fuzzy C-means clustering Code on github</li> </ul>	
<b>TEACHING ASSISTANT EXPERIENCE</b>	<ul style="list-style-type: none"> <li>• <b>Principles of Computational Intelligence (CE, AUT)</b> <i>Fall 2021</i> <i>Instructor:</i> Prof. Mohammad Mehdi Ebadzadeh</li> <li>• <b>Applied Linear Algebra (CE, AUT)</b> <i>Fall 2021</i> <i>Instructor:</i> Dr. Ehsan Nazerfard <ul style="list-style-type: none"> <li>– Making supplementary videos tutorials for students.</li> <li>– Grading home-works</li> <li>– Grading &amp; defining projects.</li> </ul> </li> <li>• <b>Operating Systems (CE, AUT)</b> <i>Fall 2021</i> <i>Instructor:</i> Dr. S.Ahmad Javadi <ul style="list-style-type: none"> <li>– Making supplementary videos tutorials for students.</li> <li>– Grading home-works</li> </ul> </li> </ul>	
<b>WORK EXPERIENCE</b>	<p><b>Tecvico</b> <i>December 2020 - September 2021</i> Vancouver, Canada IT Director and Web developer.</p> <p><b>Route Homes</b> <i>December 2020 - December 2020</i> Toronto, Canada Web developer and Website manager.</p>	
<b>HONORS</b>	<ul style="list-style-type: none"> <li>• Eligible to <b>Choose Second Major</b> due to outstanding performance, Amirkabir University of Technology, Tehran.</li> <li>• <b>Ranked as Top 3%</b> among more than 150,000 participants in National Entrance Exam for Undergraduate State Universities, Tehran, 2017.</li> </ul>	
<b>LANGUAGES</b>	<ul style="list-style-type: none"> <li>• <b>Persian</b> (Farsi): Native</li> <li>• <b>English:</b> IELTS 7.5 (Listening: 8.5, Reading: 7.5, Speaking: 7, Writing: 6.5)</li> </ul>	
<b>References</b>	<ul style="list-style-type: none"> <li>• <b>Ehsan Nazerfard, Associate Professor</b> Member of Artificial Intelligence Group, CE, AUT Email: nazerfard@aut.ac.ir Homepage: aut.ac.ir/cv/2384/Ehsan-Nazerfard</li> <li>• <b>S.Ahmad Javadi, Assistant Professor</b> Member of Computer Networks and Architecture Group, CE, AUT Email: sajavadi@aut.ac.ir Homepage: aut.ac.ir/cv/21291/S.Ahmad-Javadi</li> <li>• <b>Mohammad Mehdi Ebadzadeh, Professor</b> Member of Artificial Intelligent and Robotics Group, CE, AUT Email: ebadzadeh@aut.ac.ir Homepage: aut.ac.ir/cv/2130/MOHAMMAD-MEHDI-EBADZADEH</li> </ul>	