

# Ehsan Kiakojouri

## Curriculum Vitae

Department of Computer Engineering and  
Information Technology  
Shiraz University of Technology  
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<https://ehsankiakojouri.github.io/CV>

- RESEARCH INTERESTS
- Deep Learning
  - Computer Vision
  - Reinforcement Learning
  - Computational Intelligence
  - Optimization
- EDUCATION
- Shiraz University of Technology, Shiraz, IRAN. September 2018 - June 2022  
B.S. in Computer Engineering, **GPA: 17.63/20 (last year: 19.35/20)**, (University and Department Average GPA are 15.24 and 15.46 Respectively)  
*Relevant and Mentionable Coursework (GPA: 18.54/20):*  
Principles of Computational Intelligence (20/20), Principles of Database Design (19.14/20), Design of Algorithms (17/20), Pattern Recognition (18.1/20), Signals and Systems (18/20), Artificial Intelligence and Expert Systems (19/20).
  - Kherad Public Exemplary High School, Qeshm, IRAN. Sep 2014 - June 2018  
Diploma in Physics and Mathematics Discipline, **GPA: 18.75/20**
- HONORS AND AWARDS
- Ranked top **9%** among more than 140,000 participants in National University Entrance Exam, Admitted to Shiraz University of Technology. (Best Engineering University in South of Iran), Summer 2018.
  - Ranked **5<sup>th</sup>** among computer engineering students, Shiraz University of Technology.
- PUBLICATIONS
- **Automated Deep CNN Design using Modified Bat Algorithm for Vehicle Classification**; Kiakojouri, E. \*, Dolatpour Fathkouhi\*, A., Kavousi-Fard, A., and Karimi, M., Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence (T-PAMI), *under review*.
- RESEARCH EXPERIENCE
- **Development of several explainable artificial intelligence algorithms along with literature review**, Apr 2022; a joint work with A. Dolatpour Fathkouhi, R. Akbari, R. Razavi-Far, and J. Zarei; work in progress, Learning Systems and Cybernetics lab at the University of Windsor, Windsor, Canada (remote collaboration). We are reviewing the literature on sample neighborhood problems in XAI algorithms as well as designing and implementing two LIME-inspired XAI algorithms using swarm optimization and Siamese neural network.
  - **Examining the role of smoking in covid-19 patients**, Feb. 2022 – Mar. 2022; a joint work with A. Dolatpour Fathkouhi, R. Akbari and S.M.J. Mortazavi, Data Modeling, Processing, and Analysis Group at Modern Health Technology Research Center, Shiraz, Iran.  
We Investigated the role smoking in covid-19 patients in the city of Shiraz.
  - **Design and Implementation of a swarm optimization algorithm for designing architecture of deep learning models for classifying vehicle types using audio signals**, Jan. 2021 – Mar. 2022; a joint work with A. Dolatpour Fathkouhi, A. Kavousi-Fard and M. Karimi, Department of Electrical and Electronics Engineering at Shiraz University of Technology, Shiraz, Iran.  
We developed a novel swarm optimization algorithm and designed blocks of neural networks to fit the evolutionary optimization and ease the process of architecture design and optimization and applied the solution on a real-world problem.

TEACHING AND WORK EXPERIENCE	<ul style="list-style-type: none"> <li>• Teaching Assistant of <b>Fundamentals of Computer Programming</b> course in Shiraz University of Technology; Fall 2019; (Prof. Pirooz Shamsinejad).</li> <li>• Teaching Assistant of <b>Advanced Programming</b> course in Shiraz University of Technology; Fall 2019; (Prof. Pirooz Shamsinejad).</li> <li>• Teaching Assistant of <b>Artificial Intelligence &amp; Expert Systems</b> course in Shiraz University of Technology; Fall 2021; (Ali Sadeghi).</li> <li>• Teaching Assistant of <b>Design of Algorithms</b> course in Shiraz University of Technology; Spring 2020; (Prof. Omid Bushehrian).</li> <li>• Teaching Assistant of <b>Computational Intelligence</b> course in Shiraz University of Technology; Spring 2020; (Ali Sadeghi).</li> <li>• Teaching Assistant of <b>Signals and Systems</b> course in Shiraz University of Technology; Spring 2022; (Prof. Kamran Kazemi).</li> </ul> <p><b>Responsibilities included:</b> problem solving sessions; designing and grading problems for quizzes, exams and programming projects.</p>
ACTIVITIES	<ul style="list-style-type: none"> <li>• <b>Executive Member</b> at CE &amp; IT Scientific Association at Shiraz University of Technology, Shiraz, Sep 2020 – Mar 2021 (<i>holding webinars for the professional education of students</i>).</li> </ul>
SKILLS	<ul style="list-style-type: none"> <li>• <b>Human Languages:</b> Persian (Native) and English (Reading, Writing, Listening, Speaking)</li> <li>• <b>Programming Languages:</b> C++, Java, Python</li> <li>• <b>Programming Tools:</b> Tensorflow, Numpy, Pandas, MATLAB, Weka, CodeVision AVR, Proteus</li> </ul>
CERTIFICATES	<ul style="list-style-type: none"> <li>• <b>Deep learning &amp; Neural Network Workshop</b>, Loop Academy, Tehran, Iran, Apr 2020</li> <li>• <b>Brain Stimulation &amp; Brain Signals</b>, National Brain Mapping Laboratory (NBML), Tehran, Iran, November 2021</li> </ul>
HOBBIES	<ul style="list-style-type: none"> <li>• <b>Art</b>, Painting (Ranked 2nd in Art Contest amongst students of all schools in all educational levels in province in Hormozgan, Iran, 2014.)</li> <li>• <b>Sports</b>, Ping Pong, Karate(Kyokushin), Swimming, Cycling.</li> <li>• <b>Study and Reading</b>, in search of wisdom.</li> </ul>
REFERENCES	<ul style="list-style-type: none"> <li>• <b>Dr. Abdollah Kavousi-Fard</b>, Associate Professor, Department of Electrical and Electronics Engineering, Shiraz University of Technology Phone: +98-713 727 9189, Email: <a href="mailto:kavousi@sutech.ac.ir">kavousi@sutech.ac.ir</a></li> <li>• <b>Dr. Reza Akbari</b>, Associate Professor, Department of Computer Engineering and Information Technology, Shiraz University of Technology Phone: +98-713 726 1391, Email: <a href="mailto:akbari@sutech.ac.ir">akbari@sutech.ac.ir</a></li> </ul>