

# Behrad Mansouri

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## RESEARCH INTERESTS

Thermodynamics      Fluid Mechanics      Heat Transfer

## EDUCATION

**Amirkabir University of Technology (Tehran Polytechnic)**      September 2019 - present  
B.Sc. in Mechanical Engineering      GPA: 3.64/4  
Supervisor: Dr. Mohsen Bahrami

**Allameh Tabatabaiei High School**      September 2016 - June 2019  
Diploma in Mathematics and Physics      GPA: 19.32/20

**GRE General Test Score**      September 2022  
Verbal Reasoning: 158  
Quantitative Reasoning: 168

## TECHNICAL SKILLS

**Pyhton:** Numpy, jupyter, Matplotlib      **ML/AI:** Tensorflow, Keras  
**Engineering Software** EES, MSC Adams, catia      **Misc:** Bash script, L<sup>A</sup>T<sub>E</sub>X

## LANGUAGE SKILLS

**Persian:** Native      **English:** IELTS 8/9      **Band scores:** Speaking 7.5, Listening 9, Reading 8.5, Writing 7

## TEACHING EXPERIENCE

**Thermodynamics (I)**      Fall 2021  
Teaching Assistant      Instructor: Dr. Hashem Moradi

## NOTABLE COURSEWORK PROJECTS

**Fuels & Combustion**      Spring 2022  
Instructor: Dr. Ehsan Amani

- Preliminary design of a gas turbine combustor using EES [↗](#)

**Heat Transfer (I)**      Spring 2022  
Instructor: Dr. Behzad Baghapour

- Heat transfer analysis of a falling hollow sphere [↗](#)
- Generalized solution for variable conductivity transient conduction [↗](#)

**Machine Learning**      Summer 2022  
Kaggle Dogs vs. Cats classification with a convolutional neural network [↗](#)  
Instructor: Dr. Behzad Baghapour

Classification of natural gas consumption of household consumers with machine learning      Fall 2022  
Instructor: Dr. Nader Montazerin

## ACHIEVEMENTS AND AWARDS

Achieved top 0.4% place among all applicants of the nationwide university entrance exam for B.Sc. in Mathematics and Engineering (658<sup>th</sup> out of Approximately 160,000 participants)      2019

Admitted in the First stage Nation-wide Mathematics contest of “Olympiad”      2017

## NOTABLE COURSES

Thermodynamics (I): A+, Thermodynamics (II): A, Fuels & Combustion: A  
Fluid Mechanics (I): A, Heat Transfer (I): A+

## REFERENCES

**Dr. Mohsen Bahrami - Professor**      e-mail, homepage  
Department of Mechanical Engineering, Amirkabir University of Technology

**Dr. Hashem Moradi - Lecturer**      e-mail  
Department of Mechanical Engineering, Amirkabir University of Technology