Address: ***Email:***

Cell: ***Homepage:***

Education

Bachelor of Science, Mechanical Engineering, Expected July 2013
University of Tehran, Tehran, Iran

- Total cumulative **GPA: 18.33 /20 (3.97/4)**

Areas of Research Interests

- Heat Transfer
- Fluid Mechanics and CFD
- Optimization (Heat Transfer and Fluid Mechanics)

Awards and Honors

- **Ranked 6th** among **116** undergraduate students of Mechanical Engineering, School of Mechanical Engineering, **U**niversity of **T**ehran, Tehran, Iran. 2009-Present
- **Ranked 443rd** among more than **350,000** participants in the **nationwide** university entrance examination in mathematical sciences field for Undergraduate Program. 2009
- Awarded **Full scholarship** to study at the University of Tehran for Undergraduate Program. 2009
- **Exempted** from the **entrance examination** and **tuition** to pursue graduate studies at the University of Tehran **(**in recognition of excellent academic performance). 2012
- An **Elite Student** of the University of Tehran, Tehran, Iran. 2009-present

Selected Academic Projects

- Thermal & Heat Transfer Analysis of **a Finned One-Cylinder Internal Combustion Engine (ICE) Using Finite Difference Methods**, Developing a code in C++ and verifying it by FLUENT®, Course: Heat Transfer I, Prof. M. H. Rahimian 2011-Fall
- Investigation of **Simple Gas Turbines with/without Heat Exchanger**, Developing a code in MATLAB®, Course: Gas Turbine & Jet Propulsion, Prof. M. Raisee 2012-Spring
- Optimization of **an HRSG Unit with an Absorption Pre-Cooler using Lagrange Multipliers and Generalized Reduced Gradients(GRG)**, Developing a code in MATLAB®, Course: Optimization of Thermal Systems, Prof. F. Kowsari 2012-Spring
- Estimation of **an Unknown Walls' Temperatures in a Solid Object (IHCP) using Inverse Method and Conjugated Gradients Optimization**, Developing a code in MATLAB® (Calling FLUENT® as a subroutine), Course: Optimization of Thermal Systems, Prof. F. Kowsari 2012-Spring

- Inverse Estimation of **a Solid Object's Conductivity Factor with Measured Temperatures Data using Inverse Method and Particle Swarm Optimization(PSO)**, Developing a code in MATLAB® (Calling FLUENT® as a subroutine), Course: Optimization of Thermal Systems, Prof. F. Kowsari 2012-Spring
- Investigation of **the Altitude and Flow Type Effects on the Drag Coefficient and Terminal Velocity of a Falling Sphere**, Developing a code in MATLAB® and C++, Course: Fluid Mechanics II, Prof. K. Sadeghi 2011-Fall

Selected Academic Courses

- **Ranked among the top 5 percent students** in more than 25 courses in the School of Mechanical Engineering, Including:
  - Optimization of Thermal Systems*, 18.9/20 (ranked 3rd)
  - Gas Turbine & Jet Propulsion*, 19/20 (ranked 2nd)
  - Heat Transfer II*, 18/20 (ranked 4th)
  - Heat Transfer I, 19.7/20 (ranked 2nd)
  - Fluid Mechanics I, 19.7/20 (ranked 2nd)
  - Thermodynamics I, 18/20 (ranked 1st)
  - Automatic Control, 19.3/20 (ranked 2nd)
  - Dynamics, 17.46/20 (ranked 3rd)
  - Strength of Materials I, 19.5/20 (ranked 2nd)
  - Materials Science, 20/20 (ranked 1st)
  - Principles of Elec. Eng. I, 19.25/20 (ranked 2nd)
  - Differential Equation, 20/20 (ranked 1st)
  - Physics II, 20/20 (ranked 1st)

  * I took these courses with senior students when I was a junior one.
- Attained the **top score** in all undertaken group projects due to excellent **organizational skills.**

Work experience

- *Teaching Assistant*
  - Dynamics 2011- Fall
  - Thermodynamics I 2012-Spring
- *Private Tutor*
  - Mathematics 2010-Spring and Fall
  - Algebra 2010-Spring and Fall
  - Physics 2010-Spring and Fall

- Geometry 2010-Spring and Fall

Publications

- "Numerical and Experimental Study on Heat Transfer of Alternating Flattened Tubes" **in preparation to be submitted by June 2013.**

Computer Skills

- *Mechanical Engineering*
  - ✓ ANSYS® Fluent, Gambit®, EES©, Tec Plot™, Solid Works®, Auto CAD®
- *Programing Languages*
  - ✓ C++, MATLAB®
- *Application*
  - ✓ Microsoft Office® (Word, Excel, Power Point), Math Type, Mozilla Thunderbird
  - ✓ Having International Computer Driving License(ICDL) since 2008.

Language Skills

Persian: Native language *Azerbaijani:* Fluent

French: Intermediate

English: Fluent

- TOEFL iBT: 96 (R27, L27, S20, W22)
- GRE: V (145/170), Q (163/170), W(3/6)

Hobbies

- *Sports: Football, Basketball, Mountain Climbing, and Swimming*
- *Other: Old Persian poems, Iranian Traditional and Pop Music*

Referees

F. Kowsary
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Professor in the School of Mechanical Engineering
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M. Ashjaee
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M. Raisee
PhD: University of Manchester (UMIST)
Associate Professor in the School of Mechanical Engineering
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University of Tehran, Tehran, Iran
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M. NikKhah-Bahrami
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