

# Amir Chavoshi

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## Education:

### University of Illinois at Urbana-Champaign, IL, U.S.A

*Ph.D. in Mechanical Science and Engineering* (expected May 2017)

Thesis title: Pressure drop in headers of Microchannel Heat Exchangers (MCHX)

Advisor: Professor Pega Hrnjak

Cumulative GPA: 3.79/4.0

### Shiraz University, Shiraz, Iran

*M.S. in Mechanical Engineering* (July 2011)

Thesis title: Numerical simulation of horizontal oil separators in two-phase and three-phase flows

Advisor: Professor Omid Abouali

GPA: 16.65/20

*B.S. in Mechanical Engineering* (August 2008)

GPA: 15.95/20

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## Educational Honors:

- 4<sup>th</sup> rank among 50 students in M.S. Period with total average of 16.65/20 (2011)
  - 3<sup>rd</sup> rank among 90 students in B.S. Period with total average of 15.95/20 (2008)
  - Rank 433 in M.S. nationwide university entrance exam among about 30000 students (2008)
  - Rank 1476 in B.S. nationwide university entrance exam among more than half million students (2004)
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## Research Experiences:

- Experimental analysis of pressure drop in headers of MCHX
  - Experimental and numerical analysis of total suspended solid removal
  - Numerical simulation of horizontal oil separators in two-phase and three-phase flows
  - Develop a FORTRAN code to predict stream lines over Jackovski airfoil
  - Examine the turbulent flow field over a tall, pentagon building, using FLUENT software
  - Solve the Falknare Skan equation by a self-developed FORTRAN code
  - Tracking particles in a two dimensional channel using MATLAB
  - Numerical analysis of back-ward facing step in a turbulent flow using FLUENT software
  - Design of winch using theoretical method
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## Teaching Experiences:

### University of Illinois at Urbana-Champaign (Teaching Assistant):

- Heat transfer, Spring 2015

### University of Wisconsin-Milwaukee (Teaching Assistant):

- Fluid Mechanics Lab, Fall 2012
- Engineering Fundamentals II, Spring 2012
- Heat Transfer, Summer 2012

### Shiraz University (Teaching Assistant):

- Turbomachinery, Fall 2010
- Heat transfer, Fall 2010
- Thermodynamics, Spring 2011 & Fall 2010

**Neyriz Azad University (as visitor instructor):**

- Auto mechanics Lab, Fall 2009
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**Publications:**

**Conference papers:**

- Ren, T., Chavoshi, A., Guoliang, D., Hrnjak, P., 2014. Single Phase Pressure Drop in Round Cylindrical Headers of Parallel Flow MCHXs. 15<sup>th</sup> International Refrigeration and Air Conditioning Conference at Purdue, West Lafayette, IN, USA, Paper #2542.
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**Skills:**

- Programming language: EES, MATLAB, FORTRAN
- Software: FLUENT, ANSYS, Pro/Engineering, AutoCAD, Solidworks
- Language: Persian (Native), English (Fluent)