

# Reza Rahmati

## Curriculum Vitae

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### Personal Information

**Gender:** Male

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### Education

- **MSc in Materials Science and Engineering** Sep 2016-Present
  - Sharif University of Technology, Tehran, Iran
  - Field: Characterization and Selection of Engineering Materials
- **BSc in Materials Science and Engineering** July 2016
  - Shiraz University, School of Engineering, Shiraz, Fars, Iran
  - Cumulative GPA: 4 (18.09 out of 20)
- **Diploma in Mathematics and Physics** July 2010
  - Tohid High School, Shiraz, Fars, Iran
  - Cumulative GPA: 4 (18.51 out of 20)

### Academic Awards and Honors

- **Merit-based Admission for Graduate Studies in Materials Science and Engineering, Characterization and Selection of Engineering Materials:** Sharif University of Technology, Tehran, Iran (2016)
  - Admission offer and a two-years fellowship due to being 1st rank of the class of 2016 of undergraduate program
- **Merit-based Admission for Graduate Studies in Materials Science and Engineering, Characterization and Selection of Engineering Materials:** Amirkabir University of Technology, Tehran, Iran (2016)
  - Admission offer and a two-years fellowship due to being 1st rank of the class of 2016 of undergraduate program
- **Merit-based Admission for Graduate Studies in Materials Science and Engineering, Characterization and Selection of Engineering Materials:** Tarbiat Modares, Tehran, Iran (2016)
  - Admission offer and a two-years fellowship due to being 1st rank of the class of 2016 of undergraduate program
- **Elite Graduated Student Award** (Issued by Shiraz University Alumni Association)
- **The Highest Total GPA** achieved among 79 BSc students in School of Engineering, Shiraz, Iran
- **Ranked 1<sup>st</sup>** among 37 BSc students of Materials Science and Engineering Department, School of Engineering, Shiraz, Iran
- Awarded **full scholarship** to study at Shiraz University for undergraduate program
- **Ranked among top 1% of the participants** of the National University Entrance Exam for B.Sc. (2012)
- **Ranked 1<sup>st</sup> in National Robotic Competition** in Field of Light and Line Tracing, Shiraz, Iran, 2009

### Areas of Research Interest

- 3D Graphene Foam Based Electrodes/Capacitors for Bio sensing and Storage Applications
- Bio-MEMS/Bio-NEMS
- Bio-compatible Coatings
- Advanced Materials (Nano/Bio Materials)
- Nano-composites (Specially by FSP)
- Microstructure-Property Relationship

- Simulation of Processes by ABAQUS
- Programming with MATLAB

## Projects and Research Experience

- **Researcher at Research Center for Nanostructure and Advanced Materials (RCNAM), (Supervisor: Dr.Abdolreza Simchi)** **present**
  - Working on master thesis and related subjects
- **Friction-stir processing of a Titanium-nanoHydroxyapatite nanocomposite: Microstructural developments, mechanical properties and corrosion behavior in simulated body fluid (Supervisor: Dr.F.Khodabakhshi)** **present**
  - In progress...
- **Researcher in Materials Group in Lab on a Disk Project in Collaboration with University of California, Irvine. (Supervisor: Dr. M.Jalisi/Dr. Marc.Madou)** **Summer 2016**
  - Designed a new pattern on the microfluidics disk for a biological test (glucose test)
  - Modeled and analyzed the patterned disk by Solidworks
  - Surface modification of PMMA for hydrophobicity improvement
- **An Investigation on the Effect of Anodizing Parameters on Titanium Surface Morphology and Corrosion Resistance (Supervisor: Dr.P.Najafisayar)** **Spring 2016**
  - Investigated anodized Ti nano-structure morphology by SEM
  - Investigated anodized Ti corrosion resistance in SBF by Tafel and Impedance curves

## Notable Scores of Interest

Course	My Score	Maximum Score
Materials Selection	20	20
Advanced Materials	19.47	19.97
Introduction to Nanotechnology	19.5	19.8
Polymers	19.3	19.3
Coatings and Surfaces Metallurgy	19.88	19.97
Powder Metallurgy	19	20
Simulation in Materials Engineering	20	20
Engineering Mathematic	19.2	19.2
Fundamentals of Computer and Programming	20	20
Fundamentals of Electrical Engineering I	18.7	20

## Teaching Experience

- **Teaching Assistant, Materials Selection (Dr.S.Javadpour)** Spring 2016
  - Conducted office hours to help students understand and solve homework problems
  - Prepared and graded homework
- **Teaching Assistant, Physical Properties of Materials I (Dr.S.Javadpour)** Fall 2015
  - Conducted office hours to help students understand and solve homework problems
  - Prepared and graded homework
- **Teaching Assistant, Engineering Mathematics (Dr.F.Khodabakhshi)** Fall 2015
  - Conducted office hours to help students understand and solve homework problems
  - Prepared and graded homework

## Conferences/Seminars

- 2<sup>nd</sup> International Seminar on Bio-MEMS/Bio-NEMS Sept. 2016
  - As an English lecturer about Lab on a Disk (mutual project between Shiraz University and University of California, Irvine)
- 6<sup>th</sup> International Conference on Nanostructures (ICNS6) 7-10<sup>th</sup> March 2016
  - As a guest participant

## Workshops

- Nanotechnology Dec. 2016
- TEM Application in Nanomaterials Analysis Oct. 2016
- Fundamentals/Applications of Raman Spectroscopy and FT-IR in Nanomaterials Analysis Oct. 2016

## Computer Skills

- Programming Language:
  - C, Matlab
- Engineering Software:
  - Abaqus, Solidworks, AutoCAD, Deform, Key to Steel, CES
- General Software:
  - Microsoft Word, Microsoft Excel, Microsoft Power Point

## Languages

- Persian Native language
- English Professional proficiency
- Arabic Elementary proficiency

## Society and Committee Membership

- Member of Scientific Association of Materials Science and Engineering, Shiraz University, Iran (Scientific Group/Laboratory Group/literature Group) 2015-2016
- Member of Association of Genius Alumni of Shiraz University May 2016-Present

## Voluntary Works

- Participating in organizing 9 Laboratories of Metallurgy Dept. **Summer 2014**
- Participating in repairing of the Thermal Gravimetric Analysis System **Summer 2014**
- Participating in digitalizing the Heat Treatment Laboratory Furnaces **Summer 2014**

## Other Interests

- Sports: swimming, table tennis, chess
- Charity work
- Iranian Literature and Music
- Team Leadership and Management Skills/Business Startup

## References

- Dr. Abdolreza (Arash) Simchi,  
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- Dr. Marc Mehrzad Jalisi,  
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- Dr. Farzad Khodabakhshi,  
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- Dr. Pouria Najafisayar,  
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❖ Please do not hesitate to contact me for further information or proofs.