

## Hooman Hashemi

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CONTACT INFORMATION	UBC alumni email Email address[preferred] Current Address: 2672-4 Fairview crescent, UBC, Vancouver, Canada [Postal Code: V6T 2B9] Current phone number	hashemih@alumni.ubc.ca hhoomn390@gmail.com  +17789872393
EDUCATION	<b>University of British Columbia (UBC)</b> , Vancouver, Canada.  M.Sc., Computer Science, <i>Expected: July 2019</i> <ul style="list-style-type: none"><li>GPA: <b>3.85/(4.33)</b></li></ul> <b>Courses Taken</b> <ul style="list-style-type: none"><li>Machine Learning (CPSC 540), Graphical Models (CPSC 532R), Learning Theory (CPSC 531H), Multimodal learning (CPSC 532L), Fundamentals of Algorithm (CPSC 500) , AI II (CPSC 522) ,Parallel Programing (CPSC 521)</li></ul> <b>Sharif University of technology (SUT)</b> , Tehran, Iran.  B.Sc., Computer Engineering, <i>Software field</i> <i>Expected: June 2017</i> <ul style="list-style-type: none"><li>GPA: <b>18.10/20</b></li></ul> <b>Some Selected Courses</b> <ul style="list-style-type: none"><li>Calculus 1 (17.9/20), Calculus 2 (19/20), Numerical Methods (19.6/20), Probability and Statistics (20/20)</li><li>Design of Algorithms (20/20), Data structures (20/20), Theory of Languages and Automata (19/20), Theory of Computation (19.5/20), Database Design (20/20), Digital System Design (19.5/20), Artificial Intelligence (19.4/20), Signals and Systems (20/20), Introduction to 3D Computer Vision (18.7/20)</li></ul> <b>ATCCE High School</b> , Tehran, Iran  Diploma in Mathematics and Physics Discipline <i>June 2013</i>	
HONORS AND AWARDS	<ul style="list-style-type: none"><li><b>Ranked 4<sup>th</sup></b> in West Asia Regional ACM-ICPC Contest , Tehran, Iran <i>2014</i></li><li><b>Ranked 4<sup>th</sup></b> in West Asia Regional ACM-ICPC Contest , Tehran, Iran <i>2013</i></li><li><b>Gold Medal</b> (Ranked 1<sup>st</sup>) in 22<sup>nd</sup> National Computer Olympiad <i>2012</i><ul style="list-style-type: none"><li><i>Iranian National Olympiad in Informatics</i></li></ul></li><li><b>Silver Medal</b> (Ranked 12<sup>th</sup>) in 21<sup>st</sup> National Computer Olympiad <i>2011</i><ul style="list-style-type: none"><li><i>Iranian National Olympiad in Informatics</i></li></ul></li></ul>	
RESEARCH EXPERIENCES	<ul style="list-style-type: none"><li><b>Research on Automata in UBC.</b> <i>Summer 2018</i><ul style="list-style-type: none"><li>Research on Chemical Reaction Networks, a variation of population protocols.</li><li>Helped to Identify the class of functions defined by the CRNs which do not rely on the output.</li></ul>University of British Columbia</li><li><b>Research Assistant in IPL.</b> <i>Fall and Spring 2017</i><ul style="list-style-type: none"><li>B.Sc. Final thesis</li><li>Research on Semantic segmentation and support relationship inference for RGB-D</li></ul></li></ul>	

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- Negligible Improvements, less than a real research, mostly learning.
- Sharif University of Technology

- **Research Assistant in DREAMS lab.** *Summer 2016*  
The Chinese University of Hong Kong
  - Worked on approximation algorithms for energy systems (e.g., microgrids) under supervision of Dr.Minghua Chen
  - Research finished in documented but not published results (The result was in theory providing a 2-approx in polynomial time for the problem of dispatching energy in microgrids, improving the previous  $\approx 180$ -approx. Though the order of polynomial was high)
  - Summer Internship
- **Research Assistant in Graph lab.** *Fall 2015 — Spring 2016.*  
Sharif University of Technology
  - Worked on Hoffmann-Ostenhof's conjecture under supervision of Prof.S.Akabari.
  - Proved the conjecture for traceable cubic graphs.

#### PUBLICATIONS AND WORKING PAPERS

- **Output-Oblivious Chemical Reaction Networks.** *Summer 2018*
  - Conference paper, presented at OPODIS 2018
  - A variation of population protocols (CS Theory, Algorithm and Automata)
  - I completed the last parts, my main contribution was in the proof of sufficiency.
- **Hoffmann-Ostenhof's conjecture for traceable cubic graphs.** *Fall 2015*
  - A joint work with S.Akbari, F.Abdolhosseini. (Although we were first to put the results on arxiv(2016), someone else published the results first(2017))
  - Main contributor to the paper (The problem was solved alone. The field demands alphabetical order)

#### PROFESSIONAL EXPERIENCE

- Researcher and Developer in **Torob** company *Summer 2017*
  - Working on product category suggestion for search queries
  - Accuracy was improved from less than 80 percent to near 90
- Researcher and Developer in SUT Big Data Work Group *Summer 2015*
- Software Developer at Rahnama Co (Beep) , Tehran, Iran, *Summer 2014*
  - Mobile app and game developer using unity and native SDKs
  - Ended in developing **Light up**

#### TECHNICAL SKILLS

- ML and DNN tools and languages
  - Worked with: PyTorch, Theano, Lasagna, Caffe, Keras.
- Programing Languages
  - Expert: C++ and C, Java, Web languages
  - Skilled: Python
  - Familiar: Objective C
- Tools and Other Languages: Unity, OpenGL, GLSL, MATLAB
- Mobile Developing and Design
  - Android
  - Familiar: IOS

- Web: jQuery, Angular, Django, React etc.

#### LANGUAGES

- Persian: Native
- English: Fluent
  - TOEFL<sup>®</sup> iBT: 99 (Reading: 26, Listening: 28, Speaking: 18, Writing: 27)(Exempt)
  - GRE<sup>®</sup> : (Verbal: -, Quantitative: 168, Writing: -) November 2016
  - GRE<sup>®</sup> : (Verbal: 148, Quantitative: 163, Writing: 3) October 2016

#### REFERENCES

References are provided via hyperlinks. More information is available upon request