

## Curriculum Vitae

EDUCATION	<b>Purdue University</b> , United States	2023 – Present
	<ul style="list-style-type: none"> <li>Ph.D. in Mechanical Engineering Adviser: <a href="#">Kevin J. Kircher</a>, Research: <a href="#">Herrick Laboratories</a></li> </ul>	
	<b>University of British Columbia (UBC)</b> , Canada	2021 – 2023
	<ul style="list-style-type: none"> <li>M.Sc. in Mechanical Engineering GPA: 4.0/4.0 (94%) Thesis: <i>Mixing Hydrogen into Natural Gas Distribution Pipelines</i> Adviser: <a href="#">Sunny Ri Li</a>, Research: <a href="#">TMMFL</a> Industry partners: Renewable Gas Supply, <a href="#">FortisBC</a></li> </ul>	
	<b>University of Tabriz</b> , Iran	2016 – 2020
	<ul style="list-style-type: none"> <li>B.Sc. with Highest Distinction in Mechanical Engineering GPA: 4.0/4.0 (95.6%) Thesis: <i>Thermodynamic and Exergy Analysis of Double-pressure Kalina Cycle System (KCS) 11</i> Adviser: <a href="#">S. Mohammad S. Mahmoudi</a></li> </ul>	
	<b>Shahid Madani I Tabriz (NODET)</b> , Iran	2009 – 2016
	<ul style="list-style-type: none"> <li>High School and Middle School, Mathematics and Physics GPA: 97.75%</li> </ul>	
RESEARCH	Smart Energy Systems, Power Systems, Thermodynamics, Machine Learning, Control, Optimization	
JOURNAL ARTICLES	[1] A. J. Khabbazi, R. Li, V. Chou, and J. Quinn, “Integration of Hydrogen into Distribution and Transmission Gas Pipelines in British Columbia via T-junctions for GHG emissions reduction,” <b>submitted</b> to the International Journal of Hydrogen Energy, <b>Jul 2023</b> .	
CONFERENCE PROCEEDINGS	<p>[1] A. J. Khabbazi, M. Zabihi, R. Li, V. Chou, and J. Quinn, “Blending of Hydrogen into a Natural Gas Distribution Pipeline in British Columbia through a Tee Junction for Reducing GHG Emissions,” in Proceedings of the Canadian Society for Mechanical Engineering International Congress, 2023, pp. 1–6., submitted on <b>Feb 2023</b>, accepted and to be published, (<a href="#">link</a>).</p> <ul style="list-style-type: none"> <li><b>Best paper awardee.</b></li> </ul> <p>[2] A. Khabbazi, R. Li, and J. Quinn, “Green Hydrogen Supply to Urban Infrastructure and Buildings through Blending into the Existing Grid,” in Proceedings of the Canadian Society for Mechanical Engineering International Congress, 2022, pp. 1–1., (<a href="#">Link</a>).</p> <ul style="list-style-type: none"> <li><b>Best presentation of the symposium.</b></li> </ul> <p>[3] A. Khabbazi, R. Li, and J. Quinn, “The Blending and Transmission of Hydrogen and Natural Gas in Transmission and Distribution Pipelines,” in Proceedings of the 13th International Green Energy Conference, 2021, pp. 1–1., (<a href="#">Link</a>).</p>	
HONORS & AWARDS	<ul style="list-style-type: none"> <li>4YF Offer (\$100k) for PhD in Mechanical Engineering from UBC, Vancouver.</li> <li>Best Paper Award at <a href="#">CSME 2023 International Congress</a>, (<a href="#">Certificate</a> <a href="#">in</a>).</li> <li>Best Presentation Award at <a href="#">CSME 2022 International Congress</a>, (<a href="#">Certificate</a> <a href="#">in</a>).</li> <li>UBC Graduate Scholarship.</li> <li>UBC Dean’s Entrance Scholarship.</li> <li>Merit-based Admission for MSc in Mechanical Engineering from Sharif University of Technology, University of Tehran, and University of Tabriz.</li> <li>1<sup>st</sup> rank in CGPA (4.0/4.0) among 124 students [2016-2020]</li> </ul>	<p>UBC, 2023</p> <p>CSME, 2023</p> <p>CSME, 2022</p> <p>UBC, 2022</p> <p>UBC, 2021</p> <p>BSc, 2020</p> <p>BSc, 2020</p>
TEACHING	<ul style="list-style-type: none"> <li>APSC172   Engineering Analysis I, Role: <i>Tutorial instructor</i>, MASC</li> <li>ENGR385   Heat Transfer Applications, Role: <i>Lab instructor</i>, MASC</li> </ul>	<p>Fall’21, Fall’22</p> <p>Winter’22, Winter’23</p>

- ENGR310 | Fluid Mechanics II, *Role: Lab instructor*, MASc *Fall'21*
  - Thermodynamics II, *Role: Course support*, BSc *Winter'20*
  - Computer Programming (C/C++), *Role: Head tutorial instructor*, BSc *Fall'18, Winter'19, Fall'19*
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## SKILLS

- Technical Software:  
ANSYS Workbench, OpenFOAM, Fluent Meshing, Tecplot, Paraview, Gmsh, CATIA
  - Programming:  
Python, C/C++, Matlab, EES, PyTecplot, Git, HTML
  - Frameworks:  
NumPy, Pandas, SKlearn, SciPy, Matplotlib, Seaborn, TensorFlow
  - System and computation:  
Linux, High-performance Computing (HPC)
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## SELECTED COURSES

- Thermofluids  
Thermodynamics I&II | Refrigeration Systems | Power Plants | Heat Transfer I | Multiphase Flows | Turbulence | Topics in Engineering - H2NG TRANS \* | Fluid Mechanics I&II
  - Numerical Analysis  
Computational Fluid Dynamics (CFD) | Fundamentals of CFD | Numerical Computations
  - Applied Mathematics  
Applied Machine Learning
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## CERTIFICATIONS

- Coursera:
- *Machine Learning*, ([Certificate](#)), Deep learning.AI, in 33 hours
  - *Introduction to Data Science in Python*, ([Certificate](#)), University of Michigan, in 31 hours
  - *Applied Plotting & Data Representation in Python*, ([Certificate](#)), University of Michigan, in 21 hours
  - *Python Data Structures*, ([Certificate](#)), University of Michigan, in 19 hours
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\*Mainly covered advanced thermodynamics topics, e.g., mixing/combining rules, advanced equations of state, etc. The relevant course project is described in the Course Project section.