

# Hamid Nourani

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in: Hamid Nourani

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## SUMMARY

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Results-driven Mechatronic student from University of Concordia, passionate about developing user-friendly software applications. Excellent problem-solving skills and ability to perform well in a team. Seeking an internship or an entry-level position to grow and develop my own skills as a Mechatronic Engineer.

## EDUCATION

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**Concordia University, Montreal, QC**

*Master of Science, Mechanical*

**Montreal**

*May 2017- Present*

In Progress Thesis: Estimation of force at the tip of catheter using machine learning

**Azad University, Qazvin, Iran**

*Bachelor of Engineering, Electrical*

**Qazvin**

*September 2011 -August 2016*

## PUBLICATIONS

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**The International Journal of Medical Robotics and Computer Assisted Surgery**

*Summer 2020*

- Learning-Based Force Estimation for Intracardiac Ablation Catheters (Under Review)

**The IEEE Robotics and Automation**

*Summer 2020*

- Force Estimator Model for Intracardiac Catheters Based on Deep Learning (Under Review)

## TECHNICAL SKILLS

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- Python, MATLAB
- SolidWorks, Microsoft Office

## ACADEMIC PROJECTS

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**Sensor and Actuators**

*Winter 2017*

- Covered design of sensors and actuators for applications in industrial and medical robotics, haptics and other systems such as aerospace and smart structures.
- Publishing a conference paper as final project “Harvesting Mechanical Sea Waves Energy and Converting to Electric Energy Using Piezoelectric”

**Robotic Manipulators**

*Winter 2017*

- Discussed Types of industrial robots and their applications. Mathematical analysis for robot manipulation
- Analysis and Simulation of parallel two robotic arms holding a payload using Matlab as final project

**Flight Control Systems**

*Fall 2018*

- Discussed Basics of flight dynamics modelling: axes systems and notation, equations of motion, airplane stability, aircraft on the ground, simulator flight model design

**Industrial Automation**

*Winter 2018*

- Introduction to mechanization of industrial processes such as machining, material handling, assembling, and quality control; selection of actuators and sensors for mechanization

**Robotic Manipulators, Control**

*Winter 2018*

- Control of a single link manipulator; position, velocity and acceleration errors

## CAREER EXPERIENCE

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### Teaching and Research Assistant

**Montreal, Canada**

*Teaching Electronics for Mechanical Engineers*

*Winter 2018 - Present*

- Teaching Electronics for Mechanical Engineers to over 50 students per semester
- Marking over 350 assignments per semester
- Researcher at RoboSurgeLab at Concordia University

### Technical Supervisor at Arshavir Industrial Group

**Montreal, Canada**

*Karaj, Iran*

*2012-2014*

- Member of repair and maintenance team of elevators
- Costumer services and contacting with costumers after implementation

## AWARDS

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- Concordia Council on Student Life (CCSL)

*Summer 2020*

- Graduate Research Award

*Winter 2019*

- Merit Scholarship Award

*Winter 2018*

## EXTRA-CURRICULAR ACTIVITIES

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### President

**Montreal, Canada**

*Engineering and Computer Science Graduate Association (ECSGA)*

*2019-2020*

- Responsible for overseeing the affairs of the Association
- Acting as the main liaison between the Association and other student communities, student governments and the general public
- Representing the membership on the Faculty Council and the Faculty Council Executive Committee
- Organizing educational workshops and trips for over 5000 graduate students