

# Keith Menezes

B.Eng. Space Engineering 2018

My objective is to gain new work experience and strengthen skills that will assist in achieving future career aspirations.

keith.menezes@icloud.com

+1 647-989-5014

50 Long Island Crescent, Markham, ON.

www.keithmenezes.ca

www.linkedin.com/in/keithdanielmenezes

## Work Experience

### Unmanned Aerial Vehicle (UAV) Researcher Lassonde School of Engineering, York University

05/2016 – 08/2016

Toronto, ON

Space and Geomatics Engineering Department

#### Tasks/Achievements

- Development, control and navigation of a tethered UAV including the design and implementation of a tether mechanism and operation
- Build and test the power and propulsion subsystems of the UAV
- Performed Manual and Autonomous Wireless Control via Ground Station Software and RC Controller
- Collaborative Research and Training Experience (CREATE) Scholarship and Funding
- Collaboration with the Centre for Aerial Robotics Research and Education (CARRE)

Contact: PhD., P.Eng. Costas Armenakis –  
Associate Professor of Geomatics Engineering

### UAV Research Assistant

Lassonde School of Engineering, York University

05/2015 – 08/2015

Toronto, ON

Space and Geomatics Engineering Department

#### Tasks/Achievements

- Surface water mapping project using UAVs in Fort Chipewyan, Alberta, and Wood Buffalo National Park of Canada.
- UAV Pilot and Navigator for Aerial Mapping
- UAV Technician and System Maintainer
- Wrote Special Flight Operations Certificates approved by Transport Canada for the UAV-g-2015 conference and National Park of Canada wetland mapping project
- Collaboration between Kepler Space Inc., JWLR Inc., York University and Canada's Centre for Mapping and Earth Observation

Contact: PhD., P.Eng. Costas Armenakis –  
Associate Professor of Geomatics Engineering

## Education

### B.Eng. Space Engineering

Lassonde School of Engineering, York University

08/2013 – Present

Toronto, ON

#### Specialized Courses in:

- Space Mission & Payload Design
- Mechanisms, Materials Eng. & Thermal Design
- Remote Sensing of the Earth's Surface
- Fundamentals of Land Surveying
- Software Tools & Computational Methods
- Fundamentals of Geomatics & Space Engineering

## Skills & Competences

Leadership

Teamwork & Team Building

Public Speaking & Communication

Time Management & Organization

Microsoft Office Suite: Word, Excel, Project

MatLab, Java, C, Shell, Fortran

Altium Designer, LabView

Siemens NX, SolidWorks

Unix, Linux, Windows

## Volunteer Experience

### President and Team Leader

Canadian Satellite Design Challenge Team at YorkU

08/2014 – Present

Toronto, ON

CSDC is a challenge for Canadian Universities to design and build a 3U CubeSat

#### Tasks/Achievements

- Advise management, motivate team and drive growth within the organization
- Preside over the organization's day-to-day operations and oversee the project's progress
- Design system architecture, define system requirements, define project scope, and identify/mitigate risks to the project
- Approve final reports and design decisions and ensure the envisioned product becomes the deliverable
- Maintain official contact and affairs between faculty advisor, team, and CSDC Management Society
- Systems Engineering Team Lead

Contact: <http://www.lassat.ca> – [csdcyorku@gmail.com](mailto:csdcyorku@gmail.com)

## Education

### International Exchange, Engineering Entrepreneurship Technion - Israel Institute of Technology

05/2015 – 06/2015

Haifa, Israel

Courses in:

- Lean Start-up
- Design Thinking
- UX/UI Design
- Strategy & Financing
- Crowd Funding
- Pitching and Presenting

## Honor Awards

### The Pierre L. Morissette Institute for Entrepreneurship Silver Prize (03/2016)

*Young Space Entrepreneurs, Students for the Exploration and Development of Space*

- Designed an optical communication device for small spacecraft and devised a business proposal.
- Presented to a panel of judges knowledgeable about entrepreneurship and the space sector. Resulted in second place with cash prize.

### Impact! Youth Conference for Sustainability Leadership (05/2014)

*The Co-operators Group & The Natural Step Canada*

- Selected as one of 175 post-secondary students from across Canada to develop sustainable solutions and become effective agents for change.
- As an IMPACT! Alumni, I benefit from a network of student sustainability leaders, partners and sponsors, the eligibility to apply for seed funding.

### Engineering Supplemental Entrance Scholarship (08/2013)

*Lassonde School of Engineering, York University*

- Awarded to high school students applying to a direct-entry undergrad program with high academic standing (80+).
- Also obtained renewable entrance scholarship upon acceptance for my first year of full-time undergraduate study.

### Honeywell's Leadership Challenge Academy (03/2011)

*Honeywell & The U.S. Space and Rocket Center in Huntsville, Alabama*

- Selected as one of 200 students from over 200 countries all around the world where I learned leadership and teamwork skills with the theme of space.
- Participated in a simulated jet-fighter missions, a rocket construction class, and astronaut training - including a realistic shuttle mission.

## Personal Projects

### Autonomous Robotics (06/2014 – Present)

- Learn and build hardware and software related skills by constructing and developing an Unmanned Aerial Vehicle.
- Developing my programming proficiency with Python to contribute to the Ardu(Plane/Copter/Rover) open-source community.

## Volunteer Experience

### QB50 Mission Project Manager

York University Space Engineering Nanosatellite  
Demonstration Group (YUsend)

05/2015 – 08/2016

Toronto, ON

*International network of 50 CubeSats developed by University Teams*

Tasks/Achievements

- Create work packages, gantt charts, and timeline schedules using Microsoft Project
- Organize student volunteers into subsystem teams and distribute work packages
- Battery selection, environmental testing, and qualification
- Power budget and orbital analysis with the Systems Tool Kit (AGI STK)
- Maintain official contact with QB50 CubeSat Coordinator at the von Karman Institute, Belgium to address concerns on our design

Contact: PEng. Hugh Chesser – Associate Lecturer of Space Engineering

## Organizations

### Esri Canada GIS Centres of Excellence (09/2016 – Present)

<https://ecce.esri.ca>

### Ontario Society of Professional Engineers (10/2015 – Present)

<http://www.ospe.on.ca/>

### KSF - Kayyali Space Foundation (02/2015 – Present)

<http://www.ksf.space/>

### Professional Engineers Ontario (09/2013 – Present)

<http://www.peo.on.ca/>

## Certificates

### STK Certification Level 1 (03/2017 – Present)

Analytical Graphics (AGI) software proficiency with the Systems Tool Kit (STK)  
(<http://www.agi.com/>)

### Basic Amateur Radio Operators License (02/2017 – Present)

Industry Canada licensing to perform amateur radio communications

### Traffic Control Person (TCP) & Signaller (05/2014 – Present)

Safety training for performing road operations

### Workplace Hazardous Materials Information System (II) (11/2013 – Present)

The main components of WHMIS are hazard identification and product classification, labelling, material safety data sheets, and worker training

### National Lifeguard - Pool (08/2012 – 08/2014)

Lifesaving Society of Ontario

### Standard First Aid with CPR C (02/2012 – 08/2014)

Lifesaving Society of Ontario

### Certificate Name (06/2011 – 06/2014)

Lifesaving Society of Ontario

## Interests

Sports | Outdoors | Travel | Technology