

ZONGHAO LI

EDUCATION	McGill University	Montreal, QC
	M.Eng., Electrical Engineering (thesis-based)	2017 - Present
	University of British Columbia	Kelowna, BC
	B.A.Sc., Electrical Engineering (with distinction)	2013 - 2017

PUBLICATIONS	Z. Li and S. Bhadra, "A Flexible Printed Complementary Split-Ring Resonator based Chipless RFID," <i>2017 18th International Symposium on Antenna Technology and Applied Electromagnetics (ANTEM)</i> , Kitchener, ON, 2017
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HONORS AND AWARDS	Graduate Excellence Fellowship (\$6000)	2018
	Capstone Design Competition Second Placement (out of 46 groups)	2017
	International Student Faculty Award (\$5000)	2016
	International Student Research Award (\$5000)	2016
	International Undergraduate Student Research Award (\$5000)	2016
	Dean's Honor List of the Faculty of Applied Science	2015, 2016
	Deputy Vice-Chancellor Scholarship for International Student (\$1500)	2015, 2016
	Chancellor's Scholar Award	2013

RESEARCH EXPERIENCES	A Flexible Printed Chipless RFID based Smart Electric Nose	Montreal, QC
	<i>Research Assistant</i>	September 2017 - Present
	<ul style="list-style-type: none">Exploring the chipless radio-frequency identification (RFID) technology, including transmission line theory, ultra-wide-band (UWB) antennas, and passive microwave circuits.Using printing technologies to fabricate chipless RFID tag on flexible substrates.Wireless characterizations of the tag in the ambient environment.Using the tag to sense the gases in a testing environment to collect sensor data; the classifications and quantifications will be evaluated simultaneously by further processed the signals using artificial neural network (ANN) in TensorFlow.	
	Spatial Tracking Algorithm for Wearable Sensors	Kelowna, BC
	<i>Project Team Captain</i>	September 2016 – April 2017
	<ul style="list-style-type: none">The purpose of this project is to obtain sensor (magnetometer) data and improve its reliability for accurately modeling the human body motion by proposing a new calibration algorithm, which is implemented in Matlab, C and Python.An inertia-measurement-unit sensor is provided, and the algorithm is embedded in an STM32F4 Series microcontroller, the sensor operates wirelessly through the Bluetooth communications.Beside the above tasks, Zonghao Li's responsibilities also include group meeting conducting, industry-partner video call scheduling, project progress tracking and task organizing.This project is supervised by Dr. Thomas Johnson and sponsored by Kinetic Reality. It received the second place in the 2017 Capstone Design Competition.	

TECHNICAL SKILLS	<ul style="list-style-type: none">Microfabrication and Cleanroom Experience (vapor deposition system, mask aligner)Measurement and Test (source meter, oscilloscope, spectrometer, vector-network-analyzer)Programming Skills (Python, Matlab, C, C++, HTML)Digital System Design (Verilog, Modelsim, Xilinx-Vivado, Quartus-II)Analog Circuits (LTspice, PSIM, Cadence-Virtuoso)RF and Microwave Circuits (NI-AWR, ANSYS-HFSS, Keysight-ADS)PCB Layout Tool (Altium Designer, DipTrace)
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