

Eric Lei

CONTACT INFORMATION	111 Dryden Road Apt. 5M Ithaca, NY 14850 USA	<i>Email:</i> el536@cornell.edu <i>Phone:</i> (978)-263-5958
RESEARCH INTERESTS	Signal processing, machine learning, communication theory, high-performance computing	
EDUCATION	Cornell University , Ithaca, NY B.S. in <i>Electrical and Computer Engineering</i> Minors in <i>Mathematics and Computer Science</i>	2016 – 2020
HONORS AND AWARDS	NSF Graduate Research Fellowship, <i>National Science Foundation</i> Ganster Engineering Fellowship, <i>University of Pennsylvania</i> The Dean’s Fellowship, <i>University of Pennsylvania</i> Tau Beta Pi Eta Kappa Nu, <i>Institute of Electrical and Electronic Engineers</i>	2020 2020 2020 2019 2018
RESEARCH EXPERIENCE	VLSI Information Processing Group , Ithaca, NY <i>Undergraduate Researcher with Prof. Christoph Studer</i> <ul style="list-style-type: none"> Positioning and localization in multi-antenna wireless systems Developed novel supervised and unsupervised inference models using Siamese neural networks to obtain location information from channel-state-information Computer Systems Laboratory , Ithaca, NY <i>Undergraduate Researcher with Prof. Zhiru Zhang</i> <ul style="list-style-type: none"> Developed FPGA-accelerated implementations of cryptographic hash functions such as SHA and AES using high-level synthesis 	Feb 2018 – Present Jun. 2017 – Aug. 2017
INDUSTRY EXPERIENCE	Systems & Technology Research , Woburn, MA <i>Summer Intern, Cyber Physical Systems</i> MIT Lincoln Laboratory , Lexington, MA <i>Summer Research Intern, Group 99 (Integrated Systems and Concepts)</i> <ul style="list-style-type: none"> Information theory and control systems design for free-space laser communication systems MIT Lincoln Laboratory , Lexington, MA <i>Summer Research Intern, Group 99 (Integrated Systems and Concepts)</i> <ul style="list-style-type: none"> Read-out integrated circuits for imaging sensors. Performed RTL design and verification with synthesis/implementation on a Xilinx Ultrascale FPGA. 	Jun 2020 – Present May 2019 – Aug 2019 Jun. 2018 – Aug 2018
PUBLICATIONS AND PRESENTATIONS	E. Lei , O. Castañeda, O. Tirkkonen, T. Goldstein, and C. Studer, “Siamese Neural Networks for Wireless Positioning and Channel Charting,” <i>2019 57th Annual Allerton Conference on Communication, Control, and Computing (Allerton)</i> , Monticello, IL, 2019, pp. 200-207. E. Lei , O. Castañeda, and C. Studer, “Wireless Positioning via Twin Networks,” poster presentation at <i>Cornell Undergraduate Research Board Symposium</i> , Ithaca, NY, USA, Spring 2019.	

TEACHING	Teaching Assistant, Intro to Probability and Inference (ECE 3100)	Spring 2020
	Teaching Assistant, Machine Learning for Intelligent Systems (CS 4780)	Fall 2019
	Teaching Assistant, Digital Logic and Computer Organization (ECE 2300)	Fall 2018
	Teaching Assistant, The Comp. Tech. Inside Your Smartphone (ECE 1210)	Spring 2018, 2019
CAMPUS INVOLVEMENT AND OUTREACH	Expanding Your Horizons , Ithaca, NY <i>Volunteer</i>	April 2019
	<ul style="list-style-type: none"> Helped under-represented minorities in high school learn about circuits in an educational workshop 	
	Eta Kappa Nu , Ithaca, NY <i>Member</i>	Oct. 2018 – Present
	<ul style="list-style-type: none"> Led exam review sessions for freshman and sophomore level ECE classes 	
	IEEE Cornell Student Branch , Ithaca, NY <i>Corporate Chair</i>	Sep. 2018 – Feb. 2019
	<ul style="list-style-type: none"> Hosted information sessions for companies doing recruiting, professor talks for the student body 	
	Cornell University Engineering Success , Ithaca, NY <i>Tutor</i>	Jan. 2018 – Dec. 2018
	<ul style="list-style-type: none"> Tutor for students in Discrete Structures (CS 2800) 	
	Cornell Cup Robotics , Ithaca, NY <i>Electrical Subteam Member</i>	Jan. 2017 – Feb. 2018
	<ul style="list-style-type: none"> Worked on electronic hardware and software for semi-autonomous R2-D2 robot 	
TECHNICAL SKILLS	Computer Languages: C, C++, MATLAB, Python, Java, Verilog, R, PyMTL Libraries/Packages: NumPy, SciPy, Tensorflow, Keras, Scikit Learn, OpenMP, CVXPy, PyBind, Rcpp Tools: Git, Xilinx Vivado, Cadence Innovus	