

Carlos Martin

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Education	Columbia University , BS in Computer Science, GPA 3.88 (Dean's List) Minors: Applied Physics, Applied Mathematics	Expected May 2018
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Publications	Predicting the large-scale evolution of tag systems. <i>Complex Systems</i> , 25, 2. Generation and analysis of lamplighter programs. Under review. arXiv:1707.02652. Differentiable cellular automata. Under review. arXiv:1708.09546.	May 2016
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Experience	Summer analyst , Goldman Sachs Developed automated information retrieval and information extraction system Jun – Aug 2016	
	Software developer , Wolfram Research Developed step-by-step educational problem-solving software for Mathematica Jan – May 2016	
	Undergraduate researcher , Columbia University Lightwave Research Laboratory Researched parallel computing architectures and algorithms using OpenMP and MPI Jun – Aug 2015	
	Summer school participant , Wolfram Research Researched the dynamics of cellular automata and other computational systems Jun – Jul 2015	
	Undergraduate researcher , TRIUMF national laboratory Researched laser ion sources and laser resonance ionization spectroscopy Jun – Aug 2014	
	Software developer , Appazur Solutions Developed cross-platform app using Django, PhoneGap, Sencha, Mixpanel, Twilio Aug 2013	

Volunteering	Student ambassador , Wolfram Research Organizing workshops about Mathematica and the Wolfram technology stack Dec 2015 – present	
	Board member , Columbia Data Science Society Organizing data science and machine learning workshops and hackathons Oct 2015 – May 2017	
	Software developer , ADI Labs Developed Bayesian online changepoint detection system for stream processor Sep – Dec 2015	
	Software developer , Columbia Organization of Rising Entrepreneurs Developed website using Flask, Bootstrap, Sass, and Material Design Sep – Dec 2015	
	Secretariat member , British Columbia Model United Nations Organized multiple provincial conferences and developed organization website Feb 2013 – May 2014	
	SHAD Entrepreneurship Cup Created business plan and prototype for navigation service, competed at national level Jul 2013	

Honors	Fluor Foundation scholarship Awarded for excellence to students enrolled in engineering programs May 2016	
	Egleston scholarship Awarded for extraordinary achievement as a student, researcher, and leader Sep 2014	
	Certificates of distinction in Pascal, Cayley, Fermat, Euclid, and Senior math contests Awarded by the Centre for Education in Mathematics and Computing 2010 – 2014	
	TRIUMF national laboratory fellowship Awarded to students with a passionate interest and demonstrated excellence in physics May 2014	
	Certificate of excellence in Michael Smith Science Challenge Awarded by the Natural Sciences and Engineering Research Council of Canada Feb 2012	

Skills	Machine learning: neural networks, decision trees, clustering, graphical models, reinforcement learning Programming languages: Python, Java, C++, JavaScript, Haskell, Matlab, Mathematica Computational physics: electromagnetics, fluid dynamics, rigid body dynamics, differential geometry Language proficiency: English and Spanish (bilingual), Mandarin Chinese (elementary) Debate and public speaking: National Seminar (2012), Senior Nationals (2013), Oxford Cup (2014)	
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