

Carlos Martin

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EDUCATION **Columbia University**, BS in computer science (SEAS, intelligent systems track) Expected May 2019
Minor: Applied Mathematics. GPA 3.93 (Dean's List all semesters)
Relevant courses: machine learning, artificial intelligence, natural language processing, computer vision, Bayesian models, numerical methods, probability and statistics

PUBLICATIONS **Predicting the large-scale evolution of tag systems.** *Complex Systems*, 25(2), May 2016.
Generation and analysis of lamplighter programs. Under review. arXiv:1707.02652.
Differentiable cellular automata. Under review. arXiv:1708.09546.

SELECTED **Columbia Computer Vision Lab**, researcher Sep 2018 – present
EXPERIENCE Researching one-shot image recognition through spatiochromatic deformations
Columbia Center for Theoretical Neuroscience, researcher Sep 2018 – present
Researching mean-field variational Bayesian inference with adaptive priors
Columbia Robotics Lab, researcher May 2018 – present
Developing reinforcement learning algorithms for robots that use EEG signals
Goldman Sachs, summer analyst Jun – Aug 2016
Created automated information retrieval and information extraction system
Wolfram Research, software developer Jan – May 2016
Created step-by-step educational problem-solving software for Mathematica
Columbia Lightwave Research Lab, researcher Jun – Aug 2015
Researched parallel computing architectures and algorithms for photonic networks
Wolfram Research, researcher Jun – Jul 2015
Researched large-scale dynamics of cellular automata and tag systems
TRIUMF National Lab for Particle and Nuclear Physics, researcher Jun – Aug 2014
Researched laser ion sources and resonance ionization spectroscopy

VOLUNTEERING **Wolfram Research**, student ambassador Dec 2015 – May 2018
Organized workshops and seminars on Mathematica and Wolfram Research
Columbia Data Science Society, board member Oct 2015 – May 2017
Organized data science and machine learning workshops and hackathons
ADI Labs, software developer Sep – Dec 2015
Created Bayesian online changepoint detection system for stream processor
Columbia Organization of Rising Entrepreneurs, software developer Sep – Dec 2015
Developed website using Python Flask, Bootstrap, Sass, Material Design

SELECTED **Fluor Foundation Scholarship** May 2016
HONORS Awarded for academic excellence to students enrolled in engineering programs
Egleston Scholars Program, comprehensive 4-year program and scholarship Sep 2014
Awarded to top 1% of engineers for extraordinary achievement as researchers and leaders
TRIUMF Fellowship May 2014
Awarded to 3 students with passionate interest and demonstrated excellence in physics
British Columbia Provincial Scholarship Award May 2014

SELECTED **Machine learning:** neural networks, decision trees, clustering, graphical models, reinforcement learning
SKILLS **Programming languages:** Python, Java, C++, JavaScript, Haskell, Matlab, Mathematica
Computational physics: electromagnetics, fluid dynamics, rigid body dynamics, Monte Carlo methods
Language proficiency: English and Spanish (bilingual), Mandarin Chinese (elementary)
Debate and public speaking: Model United Nations (2011–2014), National Debate Seminar (2012), Senior National Debate Championships (2013), Oxford Cup Debate Tournament (2013)