

# Jerry Chee

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Department of Computer Science  
Cornell University

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Jerry-Chee.github.io

Education	<b>Cornell University</b> Ph.D. in Computer Science Advisor: Chris De Sa	Ithaca, NY 2019 - 2024 (expected)
	<b>University of Chicago</b> B.S. in Computational and Applied Mathematics	Chicago, IL 2013 - 2017
Publications	<b>Jerry Chee</b> , Panos Toulis. <i>Convergence Diagnostics for Stochastic Gradient Descent</i> . In <i>AISTATS 2018 (oral presentation)</i>	
Talks	<b>Convergence Diagnostics for Stochastic Gradient Descent</b> <i>AISTATS 2018</i> , with Panos Toulis.	Canary Isl Apr 2018
	<b>Statistical Properties of Stochastic Gradient Descent</b> <i>Joint Statistics Meeting</i> , with Panos Toulis.	Denver, CO Jul 2019
Projects (In Progress)	<b>Compressing Neural Networks via Markov Chain Monte Carlo</b> – with Chris De Sa, in preparation	
	<b>Parallel Learning with Sublinear Communication</b> – with Chris De Sa, in preparation	
	<b>Scalable Inference with Stochastic Gradient Descent</b> – with Panos Toulis, in preparation	
	<b>Understanding and Detecting Convergence for Stochastic Gradient Descent with Momentum</b> – with Ping Li, in preparation	
Research Experience	<b>Chris De Sa</b> , Cornell University <i>Department of Computer Science</i>	Ithaca, NY Aug 2019 - Present
	<ul style="list-style-type: none"><li>• Neural network model compression via Markov chain Monte Carlo methods.</li><li>• Building parallel learning algorithms which have distributed learning theoretic guarantees under sublinear communication.</li></ul>	
	<b>Ping Li</b> , Baidu <i>Cognitive Computing Lab</i>	Bellevue, WA Mar - Jul 2019
	<ul style="list-style-type: none"><li>• Graph neural networks multi-task learning for classification tasks.</li><li>• Convergence diagnostics for variants of stochastic gradient descent with momentum and gradient compression.</li></ul>	

	<b>Panos Toulis</b> , University of Chicago <i>Booth School of Business</i>	Chicago, IL Jan 2017 - Feb 2019
	<ul style="list-style-type: none"> <li>• Statistical analysis with stochastic gradient descent (SGD).</li> <li>• Developed a statistical diagnostic test that declares convergence of SGD, drawing upon theory from stopping times in stochastic approximation.</li> <li>• Currently developing a large scale statistical inference procedure with SGD.</li> </ul>	
Professional Experience	<b>McKinsey &amp; Company</b> <i>Senior Analytics Fellow</i>	Boston, MA Oct 2017 - Feb 2019
	<ul style="list-style-type: none"> <li>• Implemented data science solutions at client organizations, working closely with business leaders and domain experts.</li> <li>• Led several data science initiatives in predictive maintenance for the network technology division of a top telecommunications company. <ul style="list-style-type: none"> <li>– Utilized a cost (of true positive, false positive, etc.) analysis for selecting the prediction target and implementation strategy which maximized business impact and modeling feasibility.</li> <li>– Built classification models for network and customer service use cases.</li> </ul> </li> </ul>	
	<b>Uptake</b> <i>Data Science Intern</i>	Chicago, IL Sep 2016 - Jan 2017
	<ul style="list-style-type: none"> <li>• Enhanced the reporting and dashboard tools which served as a project management system for the data science team.</li> <li>• These tools tracked project status, updates, and milestones.</li> </ul>	
	<b>Nielsen</b> <i>Data Science Intern</i>	Chicago, IL Jun - Aug 2016
	<ul style="list-style-type: none"> <li>• Evaluated several data science tools based on user interface, statistical capability, computing scalability, and cost for integration into Nielsen's data science toolkit.</li> <li>• Built set top box data transformation pipeline for customer segmentation analysis.</li> </ul>	
Teaching	TA, CS 4780/5780: Machine Learning for Intelligent Systems TA, CS 4787: Principles of Large-Scale Machine Learning TA, CS 6787: Advanced Machine Learning Systems	Fall 2019 Spring 2020 Fall 2020
Outreach	<b>Skype A Scientist Volunteer</b> Video call with classrooms across the country to help educate students about research in computer science and career options as a scientist.	Apr 2020-Present
Other Information	Programming: R, Python, Julia, C (MPI) Languages: Chinese (Limited oral proficiency)	