

James Hong

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objective	To hone my teaching and research skills; to study interesting problems in computing.	
interests	Video Systems & Analytics, Cloud Computing, Machine Learning, Data Visualization, Statistics, Algorithms, Optimization, Systems & Networking, Web & Network Security	
education	<i>Ph.D. candidate in Computer Science</i>	2017 - Present
	 Stanford University. (Graphics. Advised by Prof. Kayvon Fatahalian.)	
	<i>M.S. in Computer Science</i>	2015 - 17
	 Stanford University. (Theory. GPA: 3.96)	
	<i>B.S. in Computer Science with Honors and Distinction</i>	2012 - 16
	 Stanford University. (Systems. GPA: 3.99)	
	Natural Language Processing (CS224N)	Machine Learning (CS229)
	Deep Learning for NLP (CS224D)	Artificial Intelligence (CS221)
	Deep Learning for Computer Vision (CS231N)	Advanced Topics in Operating Systems (CS240)
	Image Synthesis Techniques (CS348B)	Advanced Topics in Networking (CS244)
	Data Visualization (CS448B)	Distributed Systems (CS244B)
	Theoretical Perspective on ML (CS369L)	Database System Principles (CS245)
	Integer Programming Relaxations (CS369H)	Program Analysis and Optimization (CS243)
	Convex Optimization I (EE364A)	Compilers (CS143)
	Graph Algorithms (CS267)	Programming Languages (CS242)
	Randomized Algorithms (CS265)	Information Retrieval and Web Search (CS276)
	Optimization & Algorithmic Paradigms (CS261)	Introduction to Cryptography (CS255)
	Mining Massive Data Sets (CS246)	Computer and Network Security (CS155)
skills	Python, C, C++, Java, Scala, Rust, JavaScript, L ^A T _E X, Matlab, TensorFlow, SQL, NLP, Deep Learning, Optimization, Cloud Computing (GCloud, AWS, Azure), Linux	
experience	<i>Research Assistant</i>	2014 - Present
	 Stanford University. (Graphics & Systems)	
	<i>Course Assistant (TA)</i>	2015 - 2018
	 Stanford University.	
	<ul style="list-style-type: none">CS144: Introduction to Computer Networking (Fall '15 & '16)CS161: Design and Analysis of Algorithms (Winter '16 & Summer '18)CS224D/224N: NLP with Deep Learning (Spring '16 & Winter '17)CS244: Advanced Topics in Networking (Spring '17)	
	<i>Software Engineering Intern</i>	Summer 2016, 17
	 Rubrik, Palo Alto, CA. (Security team)	
	<i>Software Engineering Intern</i>	Summer 2015
	 LinkedIn, Mountain View, CA. (Data Analytics Infrastructure team)	
	<i>Software Development Intern</i>	Summer 2014
	 PlayStation, San Francisco, CA. (Experimentation Platform team)	
selected projects	<i>Esper: Visual Analysis of 200,000+ Hours of TV News</i>	Spring 2017 - Present
	Building a system (Esper) and query language for video analysis and understanding at scale. Currently, we are analyzing every news program (24/7) aired on CNN, FOX, and MSNBC from 2010 to now.	
	<i>DIY: Deploy-It-Yourself Cloud Applications for Cost and Privacy</i>	Fall 2017
	Building and deploying web applications on serverless for fractions of a cent.	
	<i>Bark: Securing the IoT with Default-Off Networking and Access Control</i>	2015 - 17
	Undergraduate honors thesis advised by Prof. Philip Levis. Full paper at IoTDI '18.	
	<i>Beetle: Flexible Communication for Bluetooth Low Energy</i>	2015 - 16
	Gateway architecture and protocol translation for BLE. Full paper at MobiSys '16.	
	<i>Eyes-in-the-Sky: Temporal Shifts in Satellite Images</i>	Fall 2016
	Detected deforestation in satellite images taken from Planet Labs data.	
awards	Tau Beta Pi Member, <i>Stanford University</i>	2015
	President's Award for Academic Excellence, <i>Stanford University</i>	2013
	Introductory Seminar Excellence Award, <i>Stanford University</i>	2013
	Intel Science Talent Search Semifinalist, <i>SSP</i>	2012
	National Merit Finalist and Scholarship Recipient, <i>NMSC</i>	2012