

Jiashen Cao

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EDUCATION	Georgia Institute of Technology	
	Ph.D. in Computer Science	Present
	Research interests: <i>Machine Learning, Database, and Architecture.</i>	
	M.S. in Computer Science	2020
	B.S. in Computer Science	2018
RESEARCH PROJECTS	EVA Hardware	Advisors: Hyesoon Kim and Joy Arulraj
	<ul style="list-style-type: none">• Implemented radix-based partitioning and no-partitioning hash-join in CPU.• Experimented different CUDA primitives including unified memory and cache-coherent in NVLink2.0 to support OLAP and video analytics workloads.• Designed specialized object detection model in PyTorch and implemented fine-grained query execution engine to support video analytics system.• Contributed to cascade-based query optimization in EVA system.	
	Parallel ML	Advisor: Hyesoon Kim
	<ul style="list-style-type: none">• Built system with RPC protocol to execute inference on up to 16 Raspberry Pis.• Designed specialized neural networks in PyTorch tailored for distribution.	
INDUSTRIAL EXPERIENCE	Clinic AI	2018
	<i>Software Engineer Intern</i>	
	<ul style="list-style-type: none">• Worked on speeding up Python to Cython by using parallelization techniques.• Built large-scale continuous deployment and continuous integration environment on Kubernetes cluster with AWS service.	
	Advent Software	2016
	<i>Software Engineer Intern</i>	
SELECTED PUBLICATIONS	<ul style="list-style-type: none">• Ramyad Hadidi, Jiashen Cao, Yilun Xie, Bahar Asgari, Tushar Krishna, Hyesoon Kim. <i>Characterizing the Deployment of Deep Neural Networks on Commercial Edge Devices</i>, IISWC 2019. (<i>Best Paper Nominee</i>)• Jiashen Cao, Ramyad Hadidi, Joy Arulraj, Hyesoon Kim. <i>Work-in-Progress: Video Analytics From Edge to Server</i>, ESWEEK 2019.• Ramyad Hadidi, Jiashen Cao, Matthew Woodward, Michael Ryoo, Hyesoon Kim. <i>Distributed Perception by Collaborative Robots</i>, IROS 2018.	
SKILL	Python, PyTorch, C++, CUDA, Linux, Docker, Kubernetes.	