

Angela Gao

CONTACT INFORMATION	California Institute of Technology 1200 E. California Blvd M/C 305-16 Pasadena CA 91104	(609)240-2029 afgao@caltech.edu
RESEARCH INTERESTS	Computational photography and imaging, computer vision, and signal processing– especially applications to perception, inverse problems, and biomedical imaging.	
EDUCATION	California Institute of Technology Ph.D in Computing and Mathematical Science Oct 2019 - TBD Carnegie Mellon University B.S. in Electrical and Computer Engineering, Additional Major in Biomedical Engineering Aug 2015 - Dec 2018 <ul style="list-style-type: none">GPA: 3.84 (overall), 3.88 (ECE), 3.90 (BME)Dean's List: F16, F17, S18, F18	
TEACHING EXPERIENCE	Fall 2018	EXCEL Leader, Signals and Systems
	Spring 2018	EXCEL Leader, Signals and Systems
	Fall 2017	EXCEL Leader, Mathematical Foundations for Computer Science
	Spring 2017	EXCEL Leader, Concepts of Mathematics
	Fall 2016	EXCEL Leader, Concepts of Mathematics
HONORS AND AWARDS	2020	Graduate Research Fellowship Program Honorable Mention National Science Foundation
	2019	Graduate Research Fellowship Program Honorable Mention National Science Foundation
	2018	Mary Louise Brown Graham Memorial Scholarship Top undergraduate female students in engineering and science Carnegie Mellon University
	2018	Grace Hopper Celebration Scholarship Carnegie Mellon University, Electrical and Computer Engineering Department
MEMBERSHIP	Spring 2019	Phi Kappa Phi Carnegie Mellon University
	Fall 2018	Tau Beta Pi Carnegie Mellon University
	Spring 2018	Eta Kappa Nu Carnegie Mellon University
	Spring 2018	Mortar Board Carnegie Mellon University
	Fall 2016	Alpha Phi Omega Carnegie Mellon University

GRADUATE COURSEWORK		Analysis and Design of Algorithms Image and Video Processing Neural Signal Processing Mathematical Optimization	Real Analysis Linear Analysis Machine Learning and Data Mining Networks: Structure and Economics
UNDERGRADUATE COURSEWORK		Introduction to Computer Systems Design of Digital Systems Fundamentals of Digital Signal Processing Computer Security and Applied Cryptography	Calculus in 3D Matrices and Linear Transformations Introduction to Probability Theory Discrete Mathematics Principles of Imperative Computation Electronic Devices and Analog Circuits
SCIENTIFIC RESEARCH EXPERIENCE	2019	AI powered Inline Cardiac Strain Mapping in Gadgetron on MR scanners Advisor: P. Kellman and H. Xue, National Heart, Blood, and Lung Institute, National Institutes of Health.	
	2018–2019	Illumination Source Separation From a Single Image Advisor: A. Sankaranarayanan, Department of Electrical and Computer Engineering, Carnegie Mellon University.	
	2018	Social Network Effects on Growth and Development of Adolescents Advisor: E. Celis, School of Computer and Communication Science, École Polytechnique Fédérale de Lausanne.	
	2017	Literature Review of Computational Photography and Approaches to Understand Materials Using Direct and Global Light Advisor: A. Sankaranarayanan, Department of Electrical and Computer Engineering, Carnegie Mellon University.	
	2017	Decoding Audio of Sonorines using 3D Reconstruction Advisor: A. Finklestein and S. Rusinkiewicz, Department of Computer Science, Princeton University.	
INDUSTRY EXPERIENCE	2016	Software Engineering Intern. Morsel, New York, New York. - Developed and maintained relational databases - Integrated platform with Plaid APIs using SQL and Python	

PROJECTS	2019	<p>KISS Study on "Beyond Interstellar: Extracting Science from Black Hole Images"</p> <p>Pasadena, CA.</p> <ul style="list-style-type: none"> - Worked with scientists from a variety of fields to figure out ways to image new black holes
	2018	<p>Baby Got Track</p> <p>ECE Capstone Design Project, Carnegie Mellon University.</p> <ul style="list-style-type: none"> - Developed algorithms to identify biometrics and sleep cycles - Used wireless communication to transmit data between the sensors and processor over Bluetooth and Wifi - Helped develop an Android app to send updates to parents
	2017–2018	<p>Medtronic Positional Stabilizer for Image Guidance Trackers Used in Spinal Procedures</p> <p>Biomedical Engineering Senior Project, Carnegie Mellon University.</p> <ul style="list-style-type: none"> - Collaborated with team members to develop prototypes - Worked with Medtronic employees to go through the Stanford Design Process
	2015	<p>Term Project: Outfit Generator</p> <p>Fundamentals of Programming and Computer Science, Carnegie Mellon University</p>
SERVICE	2016-2019	<p>Alpha Phi Omega</p> <p>Brother Development Chair (S18), Pledge Class Fellowship Vice President (F16), Carnegie Mellon University.</p> <ul style="list-style-type: none"> - Organized networking events between alumni and members - Planned panels and speakers for professional development - Performed over 250 hours of service

ADDITIONAL INFORMATION	2018–2019	Student Supervisor Academic Development, Carnegie Mellon University - Mentored other EXCEL/SI leaders - Helped with different administrative tasks
	2016–2019	EXCEL Leader Academic Development, Carnegie Mellon University - Instructed students in proof based courses through collaborative learning environments - Designed and implemented lesson plans presented similar to lectures and recitation
	2016–2019	Biomedical Engineering Society President (2018-2019), Social Chair (2017-2018), Assistant Social Chair (2016-2017), Carnegie Mellon University - Initiated Faculty Food Fridays, an event to foster relationships between professors and students - Initiated Coffee Conversations, an event to foster relationships between students
	2015-2017	Club Ski and Snowboard Team Carnegie Mellon University.
RELEVANT SKILLS	Programming Languages:	Python, C, x86-64, System Verilog, Matlab, L ^A T _E X, Java
	Software and Tools:	MySQL, Pytorch, OpenCV
	Spoken Languages:	English, Chinese, Spanish