

EDUCATION

Stanford University Graduate School of Engineering	2016 – 2023
<ul style="list-style-type: none"> PhD Student in Electrical Engineering: Emphasis on Signal Processing, Optimization, and Medical Imaging ICME Imaging Sciences MS Student: Emphasis on Array Imaging, and Numerical Methods Jeremy Dahl Medical Ultrasound Lab: Graduate Student Researcher 	
Georgia Institute of Technology (Georgia Tech) Honors Program	2012 - 2016
<ul style="list-style-type: none"> GPA: 3.97; GRE: Quantitative: 168, Verbal: 165, Analytical Writing: 4.5 Major: Biomedical Engineering (Conc. on Electrical Engineering, Imaging Systems, and Signal Processing) Minors: Spanish (15 Hours), and Chemistry (16 Hours) Spanish LBAT (Languages for Business And Technology) Program In Mexico and Spain 2013 	

AWARDS AND HONORS

National Defense Science and Engineering Graduate (NDSEG) Fellowship	2017
<ul style="list-style-type: none"> • Awarded by the Department of Defense (DoD) to cover 4 years of graduate student tuition and stipend 	
Henry Ford II Scholar Award	2015
<ul style="list-style-type: none"> • Awarded to the top student in terms of overall academic performance and achievements in Biomedical Engineering 	
AP State Scholar	2012
<ul style="list-style-type: none"> • Given to one male and one female student in every state in every year who passes the greatest number of AP exams with a 3 or higher 	

RESEARCH AND PUBLICATIONS

Local Sound Speed Estimation for Medical Ultrasound Imaging	2017
<ul style="list-style-type: none"> • Investigating sound speed estimation for medical ultrasound using phase-aberration correction, coherence theory, and tomography 	
Video Game-Based Upper-Extremity Rehabilitation Device	2016
<ul style="list-style-type: none"> • Patent Application (US 62/406,259 filed on 10/10/2016): Open chain wrist perturbation device for home-based neurorehabilitation • Poster Presentation: https://docs.google.com/presentation/d/1XJ_FZN6MNirk11yvlf5laoDR4A-NZmfeCXITpJjoRak/edit#slide=id.p4 • Video Demonstrations of Final Prototype: https://youtu.be/xlSqadiUHaU, https://youtu.be/ojPPCiduRok 	
Undergraduate Program in Neural Computation (uPNC) at the Center for Neural Basis of Cognition (CNBC)	2015
<ul style="list-style-type: none"> • First-author manuscript: <i>Pattern formation in oscillatory media without lateral inhibition</i> accepted by Physical Review E 	
NeuroLab Collaboration with Emory School of Medicine	2014-2016
<ul style="list-style-type: none"> • Investigated signal processing techniques to explain alleviation of depression by deep brain stimulation (DBS) with Emory • Presented findings to GT IEEE EMBS (March 5, 2015) and undergraduate symposium at Georgia Tech (April 22, 2015) • Thesis: Comparing algorithms for detecting Phase-Amplitude Coupling (PAC) in neural signals approved May 2016 • Abstract Accepted by MNS2017: <i>Modeling Dynamic Oscillations in Deep Brain Stimulation of the Subcallosal Cingulate</i> 	
Undergraduate Researcher at Georgia Tech NeuroLab	2014
<ul style="list-style-type: none"> • Publication: <i>Denoising electromyographic signals via stationary wavelet decomposition and filtering</i> for The Tower • Publication: <i>Modeling Force-Frequency Relationships in Electrically Stimulated Muscle</i> for The Tower 	

WORK EXPERIENCE

Graduate Course Assistant for Intro to Imaging and Image-based Anatomy (RAD/BioE220) at Stanford	2017
<ul style="list-style-type: none"> • Developed homework problems and designed problem sets related to the physics-portions of the course • Provided supplementary review sessions and hosted office hours to offer additional assistance to students. 	
Systems Engineering Intern for Siemens Ultrasound Innovation Team in Mountain View, CA	2016
<ul style="list-style-type: none"> • Developed a high-speed beamforming simulator with the ability to emulate system-specific architectures and non-idealities • Performed simulations and parameter optimization for retrospective transmit focusing for implementation in ultrasound system • Worked on automated-testing software for characterizing the accuracy of beamforming in ultrasound system 	
Undergraduate Teaching Assistant for Mathematics Department at Georgia Tech	2014 - 2015
<ul style="list-style-type: none"> • Planning, teaching, and grading for differential equations recitation section in conjunction with professor. • Providing supplementary handouts, review sessions, and office hours to students who need additional assistance. 	
Teaching Assistant for Quantitative Engineering Physiology Laboratory I (BMED 3110) at Georgia Tech	2014 - 2015
<ul style="list-style-type: none"> • Mentoring and assisting lab groups regarding basic physiology, experimental design, and LabVIEW programming. 	

SKILLS

Engineering Software: Eagle, LTSPICE, Quartus II (VHDL), SolidWorks, Unity3D, Microsoft Visual Studio
Programming Experience: MIPS Assembly, C/C++/CUDA, Python, Java/Javascript/C#, MATLAB, LabVIEW (CLAD Certified 2014)