

Charles Ramey

30 Bent Pine Point, Newnan, Georgia
charlesdramey@gmail.com • (678) 571-5322

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia

- Doctor of Philosophy in Computer Science Aug 2019 – Current
 - Cumulative GPA: 4.0 / 4.0
- Master of Science in Computer Science Jan 2017 – Dec 2019
 - Cumulative GPA: 3.73 / 4.0
- Bachelor of Science in Computer Science May 2011 – Dec 2016
 - Threads: Information Internetworks & Devices
 - Cumulative GPA: 3.24 / 4.0

RESEARCH EXPERIENCE

UbiComp Group, Georgia Institute of Technology

- Research Assistant Aug 2019 – Current
 - Projects: Large Scale Capacitive Sensing, Low Power Medical Wearable Devices
 - Advisors: Professor Thad Starner, Professor Gregory D. Abowd
 - Research areas: Low power electronics, Sustainable Computing, Capacitive Sensing, Wearable Computing, Large Scale Computing, Embedded Systems

Contextual Computing Group, Georgia Institute of Technology

- Research Assistant Dec 2014 – Current
 - Project: Near Real-time Analysis and Recognition of Dolphin Whistles Using CUDA
 - Advisor: Professor Thad Starner
 - Research areas: Digital Signal Processing, Machine Learning, Wearable Computers

Planetary Habitability and Technology Laboratory, Georgia Institute of Technology

- Head of Software Engineering Jul 2017 – Dec 2019
 - Project: Autonomous Underwater Vehicle for the characterization of sub-ice environments using sonar, chemical, and biological sensors to explore ice and water conditions around and beneath ice shelves.
 - Advisor: Professor Britney Schmidt
 - Research areas: Digital Controls, Machine Learning, Robotics

WORK EXPERIENCE

GVU Prototyping Laboratory, Atlanta, Georgia

- Lab Assistant Dec 2014 – Jul 2016
 - Led introductory machine shop safety and equipment training sessions
 - Assisted Prototyping Lab users with machinery and equipment
 - Offered advice and expertise to users who required project assistance

Google Inc., Mountain View, California

- Software Engineering Intern Jan 2015 – May 2015
 - Researched, designed, and developed a state of the art prototype software application
 - Maintained documentation for the prototype software application
 - Wrote applications in C# and Python for prototype software application

National Aeronautics and Space Administration, Houston, Texas

- Robotic Systems Technology Intern May 2013 – Jul 2013
 - Developed proof-of-concept mechanical models using computer-aided design
 - Assisted engineers with vehicle assembly and mechanical repairs

TEACHING EXPERIENCE	Georgia Governor's Honors Program	
	▪ Computer Science Instructor	Summer 2015, Summer 2016
	▪ Mechanical Engineering Instructor	Summer 2018
	▪ Engineering Department Chair	Summer 2018
	CS3651: Prototyping Intelligent Appliances , Georgia Institute of Technology	
	▪ Graduate Teaching Assistant, Head Teaching Assistant	Spring 2017, Spring 2018, Fall 2019
	CS6601: Artificial Intelligence , Georgia Institute of Technology	
	▪ Graduate Teaching Assistant	Spring 2020, Fall 2020
	CS6452: Prototyping Interactive Systems , Georgia Institute of Technology	
	▪ Graduate Teaching Assistant, Head Teaching Assistant	Summer 2020
ACADEMIC AWARDS	▪ Dean's List , Georgia Institute of Technology For attaining a semester GPA of 3.00 or higher	Fall 2013 – Fall 2016
CAMPUS ACTIVITIES	The Invention Studio at Georgia Tech , Georgia Institute of Technology	
	▪ President	May 2014 – Dec 2014
	• Worked with staff of executives to manage day to day Invention Studio operations	
	• Provided resources for Georgia Tech students, faculty, and staff to design, manufacture, and build projects using rapid prototyping manufacturing technologies and machinery	
	• Envisioned and implemented policies to promote long term growth and development	
SKILLS	Computer-Aided Design	
	• EAGLE, SolidWorks	
	Software Development	
	• Python, CUDA, C/C++	
	Machine Learning	
	• SciKit-Learn, Gesture Recognition Toolkit	
	Electronics	
	• Arduino, Soldering, Basic Analog Circuit Design	
	Robotics	
	• Sensor Integration, Inertial Navigation, Controls Development, Sensor Fusion, SLAM	
	Rapid Prototyping and Manufacturing	
	• 3D Printing, Laser Cutter/Engraver, CNC Waterjet, CNC Router, CNC Mill, CNC Lathe	
SELECTED PUBLICATIONS	Icefin: Redesign and 2017 Antarctic Field Deployment	
	Authors: Matthew Meister, Daniel Dichek, Anthony Spears, Ben Hurwitz, Charles Ramey, Justin Lawrence, Kit Philleo, Josh Lutz, Jade Lawrence, Britney E Schmidt	
	Publication: OCEANS 2018 MTS/IEEE Charleston	
	Modular Controls and Instrumentation Software for Icefin ROV	
	Authors: Charles Ramey, Matthew Meister, Anthony Spears, Josh Lutz, Daniel Dichek, Ben Hurwitz, Justin Lawrence, Jade Lawrence, Margaret Philleo, Britney E Schmidt	
	Publication: OCEANS 2018 MTS/IEEE Charleston	
	Wear-a-CUDA: a GPU based dolphin whistle recognizer for underwater wearable computers	
	Authors: Charles Ramey, Scott Gilliliand, Daniel Kolhsdorf, Thad Starner	
	Publication: Proceedings of the 2018 ACM International Symposium on Wearable Computers	
	Under Ice Robotic Exploration of the McMurdo Sound and Ross Ice Shelf	
	Authors: BE Schmidt, JD Lawrence, MR Meister, DJG Dichek, CD Ramey, BC Hurwitz, JJ Lutz, JP Lawrence, A Spears, BJ Glass, AS Stockton, JS Bowman, N Speller, M Philleo	
	Publication: Ocean Worlds 2085	