
Education

University of Georgia		ATHENS, GA
Master's of Science in Computer Science	GPA: 3.91 (\pm scale), 4.0 (standard)	2020
University of Georgia		ATHENS, GA
Bachelor's of Science in Computer Science		2018

Experience

University of Georgia, Small Satellite Research Laboratory (SSRL)	ATHENS, GA
Thesis: High Performance Computation with Small Satellites and Small Satellite Swarms for 3D Reconstruction	January '18 – May 2020
I design small satellite computer systems and software for computer vision and 3D reconstruction.	
Co-Founder, Program Manager, Systems Engineer	January '16 – May 2020
Co-wrote proposals and Co-founded the SSRL. I run day to day operations and research.	
Multiview Onboard Computational Imager (MOCI) Satellite	January '16 – present
A 6U cube satellite based using Nvidia TX2i GPU/SoC to Generate 3D digital surface models.	
Spectral Ocean Color (SPOC) Satellite	January '16 – present
A 3U cube satellite with a custom hyperspectral sensor to analyze the coastal ecosystems of Georgia.	
NASA, National Aeronautics and Space Administration	HOUSTON, TX
Core Flight Software Programmer	April '15 – August '15
I helped audio telemetry and communication for the Orion spacecraft.	
Human Systems Integration	April '15 – August '15
Helped develop future Graphic User Interfaces (GUIs) used for training astronauts.	
Hodgson Glass Research Laboratory	ATHENS, GA
Google Glass Development	August '14 – April '15
Helped develop first musical score viewing application for Google Glass	
Smart Podium Development	August '14 – April '15
Developed smart podium for the band director to synchronized music editing and notation.	
The Home Depot Innovation Center	ATLANTA, GA
Google Glass Research & Development	April '14 – August '14
Developed AR applications for improved store support services.	
Virtual Reality Research & Development	April '14 – August '14
Developed a VR to display heat maps of data over store shelves.	

Research

Thesis: ; Conference Paper: ; Conference Presentation: ; Conference Poster: 

High Performance Computation with Small Satellites and Small Satellite Swarms for 3D Reconstruction

Master's Thesis - The University of Georgia Athens GA, 2020
Caleb Adams, Committee: Dr. Ramviyas Parasuraman, Dr. David Cotten, Dr. Michael E. Cotterell, Dr. WenZhan Song

The Spectral Ocean Color Imager (SPOC) - An Adjustable Multispectral Imager

The AIAA/Utah State Small Satellite Conference - Small Sat Logan UT, 2019
David L Cotten, Nicholas Neel, Deepak Mishra, Marguerite Madden, Caleb Adams, Susanne Ullrich, Adrian Burd, Malcolm Adams, Kaitlyn Summey, Casper Versteeg, Jackson Parker, Fred Beyette

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- 📄 Towards an Integrated GPU Accelerated SoC as a Flight Computer for Small Satellites
IEEE Aerospace Conference
Caleb Adams, Allen Spain, Jackson Parker, Matthew Hevert, James Roach, David Cotten

Big Sky MT, 2019
 - 📄 Selected Software Demonstrations from the Multiview Onboard Computational Imager Satellite
Space Innovations Symposium
Caleb Adams, Jackson Parker

Atlanta GA, 2018
 - 📄 A Near Real Time Space Based Computer Vision System for Accurate Terrain Mapping
The AIAA/Utah State Small Satellite Conference - Small Sat
Caleb Adams, David L. Cotten

Logan UT, 2018
 - 📄 The Feasibility of Structure from Motion over Planetary Bodies with Small Satellites
The AIAA/Utah State Small Satellite Conference - Small Sat
Caleb Adams, Nicholas (Hollis) Neel, David Cotten

Logan UT, 2017
 - 📄 (SP)ectral (O)cean (C)olor Satellite, [▶ Video Link](#)
Cubesat Developers Conference - Cal Poly
Caleb Adams, David Cotten, Deepak Mishra, Nicholas (Hollis) Neel, Graham Grable, Khoa Ngo

San Luis Obispo CA, 2017

This is an incomplete list, you can visit my [website](#), view my [CV](#), or click the links above, for more details on my research

Grants Funded

UNP NS-9, Phase B	
University Nanosatellite Program, Nano-Sat 9 Phase B– \$600,000	2018
Georgia Space Grant Consortium	
Accelerated Space Computers – \$20,000	2018
NASA USIP	
The NASA Undergraduate Student Instrument Project – \$200,000	2016
UNP NS-9, Phase A	
University Nanosatellite Program, Nano-Sat 9 Phase A – \$180,000	2016

*Grants listed above have me listed as an **author**, significant contributor, and/or essential personnel.*

Awards, Honors, & Fellowships

Georgia Space Grant Consortium	
Fellowship	2018
UNP Phase B	
Phase A Winner	2018
TEDx UGA	
TEDx UGA Student Idea Showcase	2016
HackGT	
Top 8	2016
NASA Johnson EV3	
Team Excellence	2015
VT Hacks	
Winner	2015

Leadership Experience

UGA Small Satellite Research Laboratory	ATHENS, GA
Co-Founder, Program Manager	2016 – 2020
Space Innovations Symposium	ATLANTA, GA
Session Chair, Organizer	2019
Head TA - CS 1302 Software Programming	ATHENS, GA
Head TA	2018 – 2020
Hyve Robotics and AstroVisual	ATHENS, GA
Co-Founder	2015 – 2018
UGA Hacks	ATHENS, GA
Co-Founder	2015 – 2016
UGA Redcoat Band	ATHENS, GA
Section Leader	2014 – 2015