
Education

University of Georgia ATHENS, GA
Master's of Science in Computer Science 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