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## Education

University of Georgia ATHENS, GA  
Master's of Science in Computer Science 3.91 ( $\pm$ ) 2020

University of Georgia ATHENS, GA  
Bachelor's of Science in Computer Science 2018

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## 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.

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## 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*

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## 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.*

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## 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

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## 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