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## 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

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## Experience

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

### Towards an Integrated GPU Accelerated SoC as a Flight Computer for Small Satellites

**IEEE Aerospace Conference** Big Sky MT, 2019  
Caleb Adams, Allen Spain, Jackson Parker, Matthew Hevert, James Roach, David Cotten

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**Selected Software Demonstrations from the Multiview Onboard Computational Imager Satellite**  
**Space Innovations Symposium** Atlanta GA, 2018  
 Caleb Adams, Jackson Parker
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**A Near Real Time Space Based Computer Vision System for Accurate Terrain Mapping**  
**The AIAA/Utah State Small Satellite Conference - Small Sat** Logan UT, 2018  
 Caleb Adams, David L. Cotten
  - 
**The Feasibility of Structure from Motion over Planetary Bodies with Small Satellites**  
**The AIAA/Utah State Small Satellite Conference - Small Sat** Logan UT, 2017  
 Caleb Adams, Nicholas (Hollis) Neel, David Cotten
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**(SP)ectral (O)cean (C)olor Satellite,  Video Link**  
**Cubesat Developers Conference - Cal Poly** San Luis Obispo CA, 2017  
 Caleb Adams, David Cotten, Deepak Mishra, Nicholas (Hollis) Neel, Graham Grable, Khoa Ngo

*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