Caleb Ashmore Adams *Space Systems, Computation, Science*

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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
Co-Founder, Program Manager, Systems Engineer　　　　*January '16 – present*
　　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

Journal Paper: 📄 ;　Conference Paper: 🗋 ;　Conference Presentation: 🖥 ;　Conference Poster: 📖

🗋 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
🖥 Selected Software Demonstrations from the Multiview Onboard Computational Imager Satellite
Space Innovations Symposium　　　　　　　　　　　　　*Atlanta GA, 2018*
　　Caleb Adams, Jackson Parker
🗋 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

📖 Structure from Motion from a Constrained Orbiting Platform
NASA/CASIS ISS Research and Development Conference *Washington D.C., 2017*
Caleb Adams, Nicholas (Hollis) Neel

🖵 (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, 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 – Present*

Space Innovations Symposium ATLANTA, GA
Session Chair, Organizer *2019*

Head TA - CS 1302 Software Programming ATHENS, GA
Head TA *2018 – Present*

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*