Caleb Ashmore Adams

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Permanent Address:
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Current Address:
106 Pineview Court
Athens, GA 30606

EDUCATION

The University of Georgia, Athens, GA
Computer Science & Astrophysics, *Bachelor of Science*, May 2017
Current GPA: 3.07/4.0

COMPUTER SKILLS

Operating Systems: Mac OSX, GNU/Linux(Debian, CentOS, Ubuntu, Puppy), IOS, Android (KitKat)
Programming Languages: C, C++, Objective-C, Java, Javascript, Matlab, Python, Ruby
Other Related Skills: Bash and Shell Scripting, OpenGL, OpenGL ES 2.0, Apache 2.0, MySQL, OpenSSH, Gradle, XML, JQuery, Library construction, Rails, Structure from Motion, Agile Management, Computer Engineering, Orbital Mechanics Simulations (GMAT)

RELEVENT COURSEWORK

Data Structures, Algorithms, Networking, Distributed Systems, Software Programming and UNIX, Systems Programming, Computer Architecture, Theory of Computation, Development in JAVA, Discrete Mathematics, Multivariable Calculus, Differential Equations, Classical Mechanics, Stellar and Galactic Astronomy

WORK EXPERIENCE

National Aeronautics and Space Administration (NASA), Houston TX
Avionics Systems Division Intern, June 2015 - August 2015

- Developed NASA's Core Flight Software and integrated military grade audio systems into flight systems and the network at NASA's Johnson Space Center
- Core Flight Software: Built custom CFS applications that could accept UDP and CCSDS communications for handling audio commands and telemetry
- Audio Network Communications: Built packet sniffers and network traffic analyzers to make audio communications more efficient

Spacey Sciences, Athens GA
Founder, August 2015 - Current

- Formed Spacey Sciences with the goal of bringing astronomy closer to the public by building automated telescopes and operating a number of popular science blogs
- Popular Blogs: Run the most popular Computer Science blog on tumblr, and a top 10 astronomy blog with over 190,000 followers
- Automated Telescopes: Built small and cost efficient automated telescopes for mass use

UGA Small Satellite Research Lab, Athens GA
Founder and Undergraduate Lead, January 2016 - Current

- Lead a team of 20+ Undergraduate students and communicate with Faculty, Industry, and NASA/Air Force researchers
- Developed Spectral Ocean Color Satellite (SPOC Sat) - Georgia's first moderate spectral resolution coastal ecosystem CubeSat.
- Developed Mapping and Ocean Color Imager Satellite (MOCI Sat) - The first satellite to attempt Structure from Motion in Low Earth Orbit
- Oversee software development, ground station construction and communications, thermal and structural modeling, IT infrastructure, electronics board testing and integration, and daily research and development

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Hodgson Glass Research Lab, Athens GA
Lead Undergraduate Researcher, August 2013 - May 2014

- Performed technical research and logistics
- Designed, developed, and deployed a web application
- Researched and developed Music Apps for Google Glass and Smart Phones
- Developed Smart Podiums and Smart Music Stands with Raspberry Pi and Linux

Home Depot Experimental Lab, Atlanta GA
Developer Intern, June 2013 - August 2013

- Developed Google Glass software for retail applications
- Explored Virtual Reality in a retail environment using VR with Goggle Cardboard and OpenGL
- Researched and developed Smart Home Appliances

GRANTS FUNDED

- *NASA USIP (Undergraduate Student Instrument Project)*: I was the primary author of UGA's 2016 NASA USIP Proposal. This grant is allowing me to lead my university in building it's first satellite. The Spectral and Ocean Color Satellite will be launched to the Space Station for deployment in 2018.
- *UNP NS9 (University NanoSat Program)*: I am the team leader of my university's Air Force Research Lab NanoSat program. This will allow my university to build a second satellite for Low Earth Orbit. The Mapping and Ocean Color Satellite may be the first satellite to attempt Structure from Motion in Low Earth Orbit.

AWARDS & HONORS

- Winner of Virginia Tech Hacks: Placed 1st out of 700
- Best Veteran Hack at Hack FSU: Placed out of 500
- Top 8 Hacks in Hack GT: Placed out of 1000
- Team Excellence: Awarded by NASA's Avionics Systems Division
- Zell Miller and Hope Scholarship recipient
- Redcoat Band Music Scholarship recipient

NOTABLE PRESENTATIONS

- TEDx UGA Student Idea Showcase - The Importance of Space Exploration
- UGA's Next Top Entrepreneur - A presentation for Spacey Sciences
- UGA's CURO symposium - Structure from Motion and Ocean Color Analysis with Low Earth Orbit Satellite Systems
- UGA's Annual Interdisciplinary Research Conference - Musical score viewing with Google Glass

LEADERSHIP EXPERIENCE

- Satellite Undergraduate Team Leader - I lead a team of 20+ Scientists, Engineers, Developers to design UGA's first and second Cube Satellites. I also communicate with Faculty, NASA, and AFRL researchers.
- Chief Technology Officer of UGA Hacks - A founding member of the first hackathon to be hosted at UGA.
- Redcoat Band Section Leader - Managed and rehearsed 60+ band members
- Founder of Spacey Sciences - I actively engage with scientific communities on the internet.
- Web Master and Web Committee Chair for the IEEE - Electronics engineering. I taught web development to 20+ of my peers.
- Web Master of the Epsilon Lambda chapter of Phi Mu Alpha - Professional music fraternity