

Patrick Clifton Gray

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Permanent Address

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Education: University of North Carolina at Chapel Hill, May 2014
Major in Computer Science, Minor in Business
GPA: 3.53

Honors:

- Morehead-Cain Scholar - full merit scholarship to UNC Chapel Hill including four fully funded summer programs
- Semester in the Honors Program Exchange at the National University of Singapore (Spring 2013)
- 2012 North Carolina Space Grant Undergraduate Research Scholar
- 2010 MATE ROV Robotics Competition International Champion

Work Experience:

- WayPaver Foundation, Chief Operating Officer**, Chattanooga, TN, USA 2015, Aug. – Present
- assist CEO in senior leadership and oversight of programs
 - lead development of WayPaver's Lunar Settlement Index and technical programs
 - develop partnerships to support startups and researches supporting lunar settlement
- Moon Express - Software Engineer**, Mountain View, CA, USA 2014, June - 2015, May
- developed the MoonEx Ground Data Systems to support the MX-1 Lander and related testing
 - supported the Software/Avionics teams via internal tools, web apps, build systems, sys admin, and embedded systems
 - assisted in mission operations and launch operations for test campaigns at Kennedy Space Center
- Nanopop - Software Engineering Intern**, Rio de Janeiro, Brazil 2013, May - Aug.
- assisted the CTO in developing the company's Android app and handling all IT needs
- UNC Assistive Robotics Lab - Research Assistant**, Chapel Hill, NC, USA 2012 Aug. - Dec.
- led a project to develop a 3D vision system for a humanoid robot
- Atlasaur.com - Founder and Head Developer**, Chapel Hill, NC, USA 2012, June - 2013 Aug.
- personally built a web app and company finding and sharing adventure around the Earth
- UNC IT Dept. - Residential Computing Consultant**, Chapel Hill, NC, USA 2011 Aug. - 2012 Dec.
- responsible for over 300 residents and their technical well-being as an on-call computer technician

Sample of Software Engineering Projects:

- **GDS Pipeline and Tool Suite (MoonEx)** – helped to lead development of the Ground Data System and tools such as telemetry visualization, mission ops e-procs, remote monitoring (Python, C, ZeroMQ, Matlab, MongoDB, Flask, Javascript)
- **Lunar Imaging Subsystem (MoonEx)** – developed motor/camera firmware and drivers, data pipeline, and an integrated mission operations and test system to successfully demo a lunar imaging system (C, Beaglebone, GoPro, ITOS, STOL, Procs, Linux)
- **The Highlight Network (Personal, lead)** – highly scalable video app changing the world of sports highlights; production environment with full user auth and profile system (Python, Google App Engine, Google Cloud Storage, JQuery, Mercurial, OAuth)
- **3D Depth Perception (Alterovitz Robotics Lab, lead)** – integrated a Microsoft Kinect with a Linux system running ROS to give a small humanoid robot 3D vision for collision detection (C++, Linux, PointCloud API, OpenNI)

Technical Courses:

Computer Architecture and Design		Advanced Algorithms and Data Structures
Computer System Security		Computer Networking
Files and Databases		Digital Logic and Computer Design

Leadership Activities:

- Board Member**, James L. Jenkins Memorial Scholarship 2014 May - 2015 Dec
- organize and dispense funds for the Sigma Phi Society, the Alpha of North Carolina's main scholarship program
- Alumni Association Coordinator**, SEDS-USA 2013 Oct - Present
- develop and lead the SEDS-USA Alumni Association from scratch to support the national mission
- Head Organizer**, Carolina Space Symposium 2011 Oct - 2012 May
- Founder and President**, UNC Stdents for the Exp. and Dev. of Space (UNC SEDS) 2011 Jan - 2013 May
- started and led the chapter to over 40 members running numerous nationally known events and projects

Other Experience:

- Programming knowledge in order of experience: Python, Javascript/CoffeeScript, Ruby, C, Java, Bash, C++, Assembly, STOL
- Languages: intermediate Spanish; basic Portuguese speaking and writing
- Certifications: Wilderness First Responder (2016); Scuba PADI (2016); HAM Technician (2016)
- Expeditions: 6 day paddle boarding expedition (planned, 2016) Two week Southeast Asia exploration (member, 2013); Month long backpacking expedition (member, 2010)