

## Skills

**Expertise:** Cloud Computing, Big Data, Data Science, Web Applications, Mobile  
**Software:** Python, Go, Java, C, C++, Bash, HTML, JSON, Linux and UNIX  
**Cloud:** Amazon AWS, Google Cloud, OpenStack, Docker, Fig, CoreOS, Salt, Heat  
**Big Data:** Hadoop, HDFS, MapReduce, Hive, HBase, PigLatin, Spark, Storm, ZooKeeper, Sqoop, Mahout, Oozie, HCatalog, Ambari, Splunk, Elasticsearch  
**Data Science:** ML, Statistics, Visualization, Analytics, Pandas, OpenNLP, NLTK  
**Databases:** MySQL, NoSQL (Cassandra & MongoDB), Redis, Neo4j  
**Web Stack:** REST APIs, Django, Flask, Twisted  
**Android:** Android  
**Networks:** Computer, Wireless and Ad Hoc Networks, TCP/IP, 802.11, 802.15, NS3  
**Messaging:** RabbitMQ, ZeroMQ, Kafka, Zaqar, Celery, Taskflow  
**Python:** Requests, Fabric, NumPy, SciPy, Pillow, Matplotlib, Packaging, Sphinx, PyQT  
**IOT:** Atmel AVR, PIC, ARM, Flash, EEPROM, Sensors, I2C, SPI, USART  
**Security:** Computer, Network and Data Security, Bitcoin, Blockchain, Metasploit  
**Others:** Git, CICD, Agile, JIRA, Kanban, Scrum, Hacking

## Education

**University of Florida** Fall 2008 - Fall 2013  
PhD in Electrical and Computer Engineering GPA: 3.52  
Dissertation: CubeSat Cloud, a framework for distributed storage, processing and communication of remote sensing data on CubeSat clusters  
**University of Florida** Fall 2008 - Fall 2010  
Masters in Electrical and Computer Engineering GPA: 3.58  
**DAIICT** Fall 2003 - Spring 2007  
B.Tech. in Information and Communication Technology GPA: 3.67

## Experience

**Software Developer II at Rackspace Inc.** March 2014 - Current  
Designed and developed CSD transport mechanism for synchronizing Master and Slave databases. Implemented reliable asynchronous APIs for registration and database record transportation based on C++ Boost asio library and Google ProtoBuffers.  
**Software Architect for TIFAC (Volunteer)** Jan 2015 - Current  
Designed and developed CSD transport mechanism for synchronizing Master and Slave databases. Implemented reliable asynchronous APIs for registration and database record transportation based on C++ Boost asio library and Google ProtoBuffers.  
**Software Development Engineer Intern at Amazon AWS** Summer 2013  
Designed and developed CSD transport mechanism for synchronizing Master and Slave databases. Implemented reliable asynchronous APIs for registration and database record transportation based on C++ Boost asio library and Google ProtoBuffers.  
**MAC Protocol Developer Intern at xG Technology** Fall 2011  
Worked on xMax, a real-time data and voice protocol. Designed, developed and tested the xMax logging Linux kernel module to report network status and statistics to /proc.  
**Radio Software Integration Intern at BlackBerry** Summer 2011  
Did board level and Wifi testing on BlackBerry smart phones; Wrote python scripts to extract failures from logs and analyzed them to root-cause the calibration issues.  
**Research and Teaching Assistant at University of Florida** Spring 2009 - 2013  
Designed and built CubeSat Cloud; Contributor to SwampSat; TA for Wireless Networks.  
**Research Assistant, Research Engineer at DAIICT** Fall 2006 - Summer 2008  
Built CENSE sensor network; lead WildCENSE and Tiger Image Sensor Network projects; Managed the Embedded Systems and Sensor Networks Research Lab.

## Projects

- Poppy and Zaqar** April 2014 - Current  
Created Bitcoinpy, a Python implementation of Bitcoin with focus on hackability and modularity. Analysed Bitcoin blockchain using Hadoop, Hive and Hbase.
- Boltcoin & Reversecoin** Jan 2013 - Current  
Created Bitcoinpy, a Python implementation of Bitcoin with focus on hackability and modularity. Analysed Bitcoin blockchain using Hadoop, Hive and Hbase.
- Bitcoinpy and Blockchain analysis** Fall 2013 - Current  
Created Bitcoinpy, a Python implementation of Bitcoin with focus on hackability and modularity. Analysed Blockchain using Python Pandas.
- CubeSat Cloud** Fall 2010 - Fall 2013  
Designed and implemented “CubeSat Cloud”, a framework for distributed storage, processing and communication of remote sensing data on CubeSat clusters.
- FUNSAT V & VI** Fall 2008, Fall 2009  
Lead UF’s Small Satellite LASER Communication subsystems team in FUNSAT V and FUNSAT VI; Bagged first prize in FUNSAT-V satellite design competition held by NASA.
- SwampSat** Fall 2008 - Present  
Designed communication protocols for SwampSat. Designed and developed SwampSat cloud application, a distributed packet collector, decoder and analyzer in Python on Google App Engine.
- CENSE, WildCENSE and SmallCENSE** Fall 2005 - Spring 2008  
Designed and developed CENSE, a delay tolerant WSN testbed for monitoring the habitat of wildlife. Developed WCFFS flash file system and wrote several device drivers.
- Linux from scratch** Spring 2005  
Built a custom Linux system from scratch, entirely from source code.

## Activities

- GatorLUG University of Florida Student Group** Fall 2009 - Spring 2013  
Organized and / or taught classes on Python, C++, Android and Cloud Computing.
- ASHA, GDG, ICEC, SF Bitcoin Devs, SIT, SSDC** Fall 2008 - Present  
Member, active participant and volunteer of the above mentioned clubs.