

MICHAEL D. METRAL

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Objective

- Acquire a position that allows me to develop, engineer and architect software solutions as well as conduct research within the fields of distributed systems, virtualization, security, and mobile platforms that will grant me the opportunity to contribute to the technological community, while simultaneously enhancing my capabilities alongside exceptional colleagues in the respective fields.

Education

- **Cornell University**—Ithaca, New York, USA
Masters of Engineering - Computer Science - 2007
 - **Masters Project:** Distributed Systems
Specificially, improved the operations of Antiquity, an established distributed storage system. By developing an integrated management utility that monitors nodes within a cluster and creates statistical data, I was able to supply the system with the capability of making intelligent and informative decisions to improve the overall condition of a cluster.
- **University of Miami**—Miami, Florida, USA
Bachelors of Science - Computer Science (Cum Laude) - 2006
 - **Individual Project:** Automated Reasoning Tools
Specificially, created a programming language translator for the automated theorem proving community. The translator converts the Knowledge Interchange Format (KIF) to the Thousands of Problems for Theorem Provers (TPTP) syntax.

Experience

- **Rackspace Hosting**—San Francisco, California, USA
Solution Architect on OpenStack for Private Cloud
June 2012–Present
 - **Focus Areas:** Cloud Computing, Virtualization, Distributed Systems, System Architecture
 - **Roles:** Technical Lead for Private Cloud Partner Program, Software Researcher & Developer
 - Construct technical program to engage business partners with regards to OpenStack and Rackspace's Private Cloud division
 - Architect & develop software solutions for OpenStack used on internal testing and integration platforms as well as customer-facing products
 - Internal & external software and technology assessment
 - Conduct research in the respective field of Cloud Computing
- **Sandia National Laboratories**—Livermore, California, USA (Prev. Albuquerque, New Mexico, USA)
Software Researcher & Developer (Member of Technical Staff) – Information Systems Assessments
August 2008–May 2012 – 4 Years
 - **Focus Areas:** Cloud Computing, Virtualization, Distributed Systems, System Architecture, Reverse Engineering, Embedded Devices, and Security Systems & Devices Assessments
 - **Roles:** Technical Lead, Co-Program Investigator, Architectural Lead, General Researcher
 - Conduct research and development on concurrent technological issues & problem sets
 - Architect & Develop software for new systems, as well as extend existing systems
 - Develop software to analyze, reverse engineer, and improve existing systems

- Active project mentor to several interning summer college students in the Sandia Center for Cyber Defenders (CCD) program since 2009
- Technical Report: Exploration of Cloud Computing: Raincoat, Sandia National Labs - Sept. 2010
- **Cornell University**—Ithaca, New York, USA
Teaching Assistant—Introduction to Computing using Matlab & Java
August 2007–December 2007 – 4 Months
 - Taught laboratory sections
 - Counselling & assisted students
 - Conducted administrative duties
- **Univision Communications, Inc.**—Miami, Florida, USA
System Administrator—Management of Information Systems (MIS)
May 2005–November 2006 – 1.5 Years
 - Provided technical support for computer hardware, software and peripherals
 - Supervised & administered computer systems and networks
 - Engaged in numerous departmental & site improvement projects

Skills

- **Operating Systems:** Macintosh OS X, Microsoft Windows 9X/XP/Vista/7/8, UNIX/Linux (i.e. Debian, Ubuntu, Fedora and RedHat)
- **Computer Languages:**
 - Proficient in Python, Objective-C, C, Ruby on Rails, Java, Bash, L^AT_EX
 - Familiar with HTML, JavaScript
- **Tools and Systems/Environments:**
 - Proficient in Vim, Git, Subversion, Apache, MySQL/SQLite, MongoDB, IDA Pro, Mozilla Extensions/Add-Ons, Google Chrome Extensions/Add-Ons, Eucalyptus, OpenStack, Amazon EC2, Rackspace, Hadoop, iOS and Android Development, Node.js
- **Foreign Language(s)**
 - Spanish: Very fluent in speaking and writing

Achievements & Accomplishments

- **Sandia National Laboratories**
 - Numerous Excellence & Employee Recognition Awards
- **University Honor Roll**
 - **University of Miami**
 - * **Provost**
 - December 2003, 2004
 - May 2004
 - * **Dean's List**
 - May 2005, 2006
- **Merit-Based Scholarships**
 - **University of Miami**
 - * Henry K. Stanford (2003)
 - * Florida Bright Futures (2003)

Other

- Recommendations available upon request
- Further information regarding research, projects and interests can be found on my personal homepage: <http://www.metrapolis.com>