

## EDUCATION:

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**2020** PhD degree in Computer Science, University of Missouri. Columbia. GPA 3.6/4.0

**2014** Master degree in Computer Science, University of Missouri. Columbia. (Fulbright Scholar) GPA 3.6/4.0

**2005** B.A. in Computer Science, San Andres University (UMSA), Bolivia.

## AWARDS/ HONORS:

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- 2020 Selected to participate in the ACUE Course, Effective Online Teaching Practices, UMC.
- 2019 Recipient of IT Program travel grant to attend the Cyber Week conference at Tel Aviv University, Israel
- 2019 Recipient of NSF travel grant to attend the AISES Engineering Faculty career Workshop at Milwaukee, Wisconsin
- 2019 Recipient of NSF travel grant to attend the GMIS Early-Career Faculty Symposium conference at Orlando Florida
- 2019 Selected as AWS Educate Faculty Ambassador (Amazon Web Services)
- 2019 Recipient of UMC award for 'Company visit funds' to take students to visit Netrality Data , Cerner and MOREnet datacenters at Kansas City
- 2018 Recipient of NSF travel grant to attend the SHPE Early-Career Faculty Symposium conference at Cleveland, Ohio
- 2018 Recipient of UMC award for "Online Teaching Foundations Program Award"
- 2018 Recipient of UMC award for "Student Teaching as a Research (STAR)"
- 2016 Recipient of NSF travel grant to attend the COnext Conference at Irvine, California
- 2016 Recipient of Bolivian government travel grant to attend the 'First Scientific workshop for Bolivians living abroad for Scientific and Technological improvement - 50 researchers selected internationally' at Cochabamba, Bolivia
- 2015 Recipient of CS Department travel grant to attend the Oklahoma Supercomputing Symposium at Oklahoma
- 2015 Recipient of NSF travel grant to attend the IEEE 23rd International Conference on Network Protocols at Irvine, California
- 2015 Recipient of Outstanding Master Student award in the CS Department, University of Missouri Columbia, USA
- 2011 Recipient of a Fulbright grant to study a Master Program at the University of Missouri Columbia, USA
- 2010 Recipient of an Indian grant to attend a training workshop "Networking (A+, N+, CCNA, MCITP)" for 3 months at Bangalore, India
- 2007 Recipient of a Japanese grant (JICA) to attend a training workshop "Web Application (Open Source) for e-government promotion" for 6 months at Okinawa, Japan
- 2008 Recipient of an OAS (Organization of American States) grant to attend a training workshop "Introduction to the municipal strategies of e-government" online

## WORKING EXPERIENCE:

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- **Fall 2018 – Present. University of Missouri – Assistant Professor of Practice at the EECS Department**
  - Developed and teaching the courses: Advanced Cyber Security, Computer Network Security, Digital Forensics, Computer System Administration, and Unix Operating System.
  - Developed the "IT Cybersecurity Certificate" for the Undergraduate Program.
- **Fall 2017 – spring 2018. University of Missouri – Graduate Instructor Assistant at the CS Department**  
Developed and teaching the courses: Unix Operating System and Computer System Administration.
- **Spring 2013 – spring 2016. University of Missouri – Graduate Research Assistant**  
Graduate Research Assistant in VIMAN Lab (<http://faculty.missouri.edu/calyamp/>) working in several Virtualization, Networking and Cloud Computing Research Projects and large-scale applications related to networking optimization through virtualization and enable seamless access to federated cloud resources for scientific applications.
- **Summer 2015, 2016, 2017, 2018 Instructor at San Andres University (UMSA) and EGPP, Bolivia**  
Developed and teaching the courses at the CS graduate program: Computer Networking and Network Forensic.
- **Summer 2013. University of Missouri – System Administrator**  
Assist on system administration tasks for research computing resources in the Computer Science Department.
- **2006-2012 – Chief of IT Department at Prefecture of La Paz and El Alto Municipality, Bolivia**  
Implementation of the "Computer Literacy Program", the project consisted in providing to all the public elementary, junior high and high schools of La Paz Prefecture (80 municipalities 30% of Bolivia) a computer laboratory. More than 7500 computers were installed with Linux OS, connected through a WAN and administered. One of the main tasks was to provide technical support to the teachers and technicians in each municipality. Several technical even social issues were faced and overcome successfully as this was the first project of this magnitude in the country.

## SKILLS:

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- *Linux System Administration*: Installation, configuration, administration and security of CentOS, RedHat, Debian and Ubuntu Server (DNS, DHCP, PROXY, WEB, FTP, VPN, MAIL, SSL-TLS, VoIP, FIREWALL, Database administration, System Security).
- *MS Windows System Administration*: Installation, configuration, administration and security of Windows Server 2016/2019 (DNS, ACTIVE DIRECTORY, GPO's, MICROSOFT EXCHANGE, DHCP, PROXY, IIS, Monitoring and Security).
- *Cloud Computing*: Amazon Web Services (AWS), cloud Infrastructure deployment (VMware Horizon View, Thin clients), OpenStack, Global Environment for Network Innovations (GENI).
- *Compute Virtualization*: Hypervisors VMware ESXi, XenServer, HyperV, Docker, Virtual Box, VMware WS/Fusion, KVM.
- *Networking Administration*: Plan, design and implement data connectivity for LAN and WAN (Layer 2 and Layer 3) Installation and configuration of CISCO Routers and switches, CCNA level. Security, monitoring and traffic anomaly detection.
- *Network Virtualization*: OpenFlow, Software Defined Networking SDN (FloodLight, OpenDayLight), Network Function Virtualization NFV (Vyatta-Brocade) for High Bandwidth and Low Latency connections through 'Advanced Layer 2 Service' AL2S-Internet2 100Gbps network infrastructure and Science DMZ.
- *Other*: Hardware infrastructure deployment, Shell Scripting, RegEx, Python, C, C++, Web development, Relational DB.
- Native speaker of Spanish, advanced in English.

## PROFESSIONAL CERTIFICATIONS:

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- VMware Certified Associate – Data Center Virtualization. VCA-DCV. Columbia, Missouri (2014)
- Microsoft Certified Professional – MCP E917-0550. La Paz, Bolivia (2012)
- Cisco Certified Network Associate – CCNA. Microsoft Testing Center. Bangalore, India (2011)
- Microsoft Certified Technology Specialist – MCTS. Microsoft Testing Center. Bangalore, India (2011)
- Windows Server 2008 Network Infrastructure, Configuration. C718-6211. Bangalore, India (2011)
- Windows Server 2008 Active Directory Configuration. C718-6209. Bangalore, India (2011)
- Windows 7 Configuration. C718-6209. Bangalore, India (2011)

## PEER-REVIEWED PUBLICATIONS:

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### JOURNAL

- **R. Bazan**, P. Calyam, A. Chandrashekar, R. Mitra, "Recommending Heterogeneous Resources for Science Gateway Applications based on Custom Templates Composition", Elsevier Future Generation Computer Systems (FGCS) – Special Issue on Science Gateways, 2019.
- M. Dickinson, S. Debroy, P. Calyam, S. Valluripally, Y. Zhang, **R. Bazan**, T. Joshi, T. White, D. Xu, "Multi-cloud Performance and Security Driven Federated Workflow Management", *IEEE Transactions on Cloud Computing (TCC)*, 2018.
- **R. Bazan**, P. Calyam, S. Debroy, L. Cui, S. Seetharam, M. Dickinson, T. Joshi, D. Xu, T. Beyene, "ADON: Application-Driven Overlay Network-as-a-Service for DataIntensive Science", *Transactions on Cloud Computing*, 2017.
- P. Calyam, I. Jahnke, A. Mishra, **R. Bazan**, D. Chemodanov, M. Skubic, "Towards an ElderCare Living Lab for Sensor-based Health Assessment and Physical Therapy", *IEEE Cloud Computing Magazine(Cloud4ELE)*, 2017.
- A. Mishra, **R. Bazan**, D. Chemodanov, P. Calyam, M. Skubic, "Synchronous Big Data Analytics for Personalized and Remote Physical Therapy", *Elsevier Journal SI on Pervasive and Mobile Computing*, 2015.

### CONFERENCE

- **R. Bazan**, P. Calyam, A. Chandrashekar, S. Malhotra, "Recommending Resources to Cloud Applications based on Custom Templates Composition", *ACM Computing Frontiers Conference*, 2017.
- A. Akula, P. Calyam, **R. Bazan**, R. Leto, "Advanced Manufacturing Collaboration in a Cloud-based App Marketplace", *ACM Computing Frontiers Conference*, 2017.
- **R. Bazan**, P. Calyam, D. Chemodanov, W. de Donato, A. Mishra, A. Pescape, M. Skubic, "Socio-technical Approach to Engineer Gigabit App Performance for PhysicalTherapy-as-a-Service", *IEEE Healthcom*, 2017.
- T. Nguyen, P. Calyam, **R. Bazan**, "Benchmarking in Virtual Desktops for End-to-End Performance Traceability", *IEEE/IFIP Workshop on QoE Centric Management (QCMAN)*, 2015.
- **R. Bazan**, G. Bui, P. Calyam, B. Morago, T. Nguyen, Y. Duan, "LIDAR-based Virtual Environment Study for Disaster Response Scenarios", *IFIP/IEEE International Symposium on Integrated Network Management (IM)*, 2015.
- S. Ramisetty, **R. Bazan**, P. Calyam, J. Cecil, A. Akula, R. Leto, "Ontology Integration for Advanced Manufacturing Collaboration in Cloud Platforms", *IFIP/IEEE Intl. Symposium on Integrated Network Management (IM)*, 2015.
- P. Calyam, S. Seetharam, **R. Bazan**, "GENI Laboratory Exercises Development for a Cloud Computing Course", *GENI Research and Education Experiments Workshop*, 2014.

## TECHNICAL PRESENTATIONS & DEMONSTRATIONS:

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- “Recommending Resources to Cloud Applications based on Custom Templates Composition”, paper presentation at *ACM Computing Frontiers Conference*, Siena, Italy, 2017.
- “Advanced Manufacturing Collaboration in a Cloud-based App Marketplace”, paper presentation at *ACM Computing Frontiers Conference*, Siena, Italy, 2017.
- “Socio-technical Approach to Engineer Gigabit App Performance for PhysicalTherapy-as-a-Service”, paper presentation at *IEEE Healthcom, Dalian, China, 2017*.
- Recommending Resources to Cloud Applications based on Custom Templates Composition – Demo Presentation at *GENI NICE Engineering Conference*, Irvine, California, 2016.
- Hybrid Cloud Technologies for HPC Queuing Experiments in ‘Simulation as a Service’ – Demo Presentation at *GENI 24<sup>th</sup> Engineering Conference*, Tempe, Arizona, 2016.
- HPC Queuing Experiments in ‘Simulation as a Service’ – Demo Presentation at *GENI NICE Engineering Conference*, San Francisco, California, 2015.
- “An App Marketplace for Advanced Manufacturing”, Demo Presentation at *GENI 22<sup>th</sup> Engineering Conference*, Washington DC, 2015.
- ‘Physical Therapy as a Service”, Invited Talk/Demo at *US Ignite Application Summit*, Washington DC, 2015.
- “Ontology Integration for Advanced Manufacturing Collaboration in Cloud Platform”, Demo Presentation at *GENI 21<sup>th</sup> Engineering Conference*, Bloomington, Indiana, 2014.
- “Interactive Interface for Remote Physical Therapy”, Invited Talk/Demo at *US Ignite Application Summit @ Juniper Networks*, Sunnyvale, California, 2014.
- “Simulation-as-a-Service: A GENI Experiment for Advanced Manufacturing”, Demo Presentation at *GENI 19<sup>th</sup> Engineering Conference* at Georgia Tech, Atlanta, Georgia, 2014.
- “GENI Lab Exercises for a Cloud Computing Course”, *Talk at NSF Workshop on GENI in Education*, Brooklyn, NY, (In conjunction with 18<sup>th</sup> GENI Engineering Conference) 2013.

## NEWS FEATURES:

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- [“Five Tips to Stay Cyber Safe While Shopping Online This Holiday Season”](#), MU Engineering Press Release, 2020.
- [“Five tips to stay cyber-safe while online shopping during the holidays”](#), Show me Mizzou Press Release, 2020.
- [“Cybersecurity Club Will Provide New Opportunities”](#), MU Engineering Press Release, 2020.
- [“Mizzou Engineering Adds Four New IT Certificates”](#), MU Engineering Press Release, 2020.
- [“Protect yourself from would-be hackers”](#), MU Engineering Press Release, 2020.
- [“Recommending Heterogeneous Resources for Science Gateway Applications based on Custom Templates Composition”](#), Aquila clouds, 2019.
- [“Mizzou Engineering team building cloud computing ‘blueprints’”](#), MU Engineering Press Release, 2019.
- [“A how-to guide for small businesses navigating ‘the cloud’”](#), Tech Xplore, 2019
- [“Engineering faculty member lands pair of campus awards”](#), MU Engineering Press Release, 2018.
- [“Mizzou SHPE ships off to national conference in Ohio”](#), MU Engineering Press Release, 2018.
- [“Hacker Trackers camp teaches high schoolers cyber security skills”](#), MU Engineering Press Release, 2017.
- [“Computer science students, adviser honored at Engineering Awards Banquet”](#), MU Engineering Press Release, 2015.
- [“Fulbright Scholarship brings world traveler to Mizzou”](#), MU Engineering Press Release, 2015.
- [“Passion for Computer Science Leads Fulbright Grantee to Study in the United States”](#), LASPAU, 2015.
- [“Interactive Interface for Remote Physical Therapy”](#), USignite, 2014.
- [“VIMAN lab pushes the virtual network computing envelope”](#), MU Engineering Press Release, 2014.

## OTHER SERVICES:

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Founder of Catecbol, a non-profit educational project that aims to create a network for Bolivian professionals and researchers who are interested in technological and scientific subjects who are willing to share experiences and scientific knowledge to Bolivian universities through virtual training for free.

- [“Bolivianos en el exterior capacitan a 2.600 universitarios del país”](#), Los Tiempos Press Release, 2017.
- [“Capacitación virtual por instructores bolivianos”](#), El Diario Press Release, 2017.
- [“Seis universidades del país integran la red Catecbol”](#), El Diario Press Release, 2017.
- [“Análisis comparativo entre máquinas virtuales y contenedores”](#), Comunidad de Software Libre Beni 2017.