Juan Luis Burgos

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Education

Bachelor of Science, Texas A&M University, May 2013 Majors: Computer Engineering and Applied Mathematical Science Overall GPA: 3.63 / 4.00

Technical Skills

Familiar with Windows, MacOS, and Linux operating systems. Experience programming in C/C++, Java, Ruby, Python, Lua, Shell, LATEX.

Relevant Experience

Staff Software Engineer

IBM Corporation Durham, NC

August 2016 - Present

- Worked with international team to architect the integration of new data-analytics functionality into the IBM Cloud Pak for Multicloud Management performance monitoring product.
- Designed and implemented a dockerized micro-service that manages customer configurations for data-analytics functionality.
- Implemented two separate Lua-based Haproxy plugins that (a) authorize client API calls by validating bearer tokens and (b) redirect client API calls through region-specific proxy endpoints to support global customer base.
- Continuing development and support for multiple backend Ruby on Rails endpoints, maintenance of Apache and Haproxy servers, and inter-service integrations for SaaS products.
- Workingly directly with DevOps and Infrastructure teams to resolve customer issue.

Backend Engineer

IBM Corporation Durham, NC

July 2014 - August 2016

- Lead Ruby on Rails developer on our backend endpoint that manages the creation, modification, and destruction of SaaS subscriptions and integration with other services.
- Implemented backend scripts in Ruby, Perl, and Bash that supported E2E SaaS subscription life-cycle flows.
- Implemented web interface providing users with monitoring agent, configuration package, and development tool download capability.
- Supported infrastructure team in the introduction of new API flows.
- Assisted SaaS Operations team during product releases.

Software Engineer

IBM Corporation Durham, NC

July 2013 - July 2014

- Designed and developed a new Ruby on Rails agent for the Application Performance Monitoring on SaaS product.
- Daily interaction with global test teams to address bug reports and new feature requests.
- Assisted in the development of other monitoring agents (i.e. MongoDB, PHP).

Undergraduate Researcher

Parasol Lab at Texas A&M College Station, TX

June 2010 - May 2013

- Conducted research in the area of Sampling Based Motion Planning (SBMP) under the guidance of Dr. Nancy Amato.
- Worked on multiple research papers and completed senior research thesis as part of my B.S. Computer Engineering degree plan.
- Attended multiple research seminars and a Computing conference in Washington D.C.

Texas A&M University College Station, TX

January 2009 - May 2011

• Directly tutored both individual students and large groups on concepts ranging from Single to Multi-Variate Calculus, Differential Equations, and Linear Algebra using Matlab and MapleSoft programming languages.

SEE Math Camp Counselor

Texas A&M University College Station, TX June 2009, 2010, 2011

• Mentored middle school students in their exploration of the world of mathematics through group activities and MapleSoft programming at annual math-oriented summer camp held by the Texas A&M Department of Mathematics.

Honors and Memberships

Cum Laude Honors, 2013
Undergraduate Research Fellows Honors, 2013
University Honors, 2013
Engineering Scholar Honors, 2013
Upsilon Pi Epsilon Membership, 2013
Dean's List, 2008 - 2013
Distinguished Student Award, 2010
Pi Mu Epsilon Membership, 2009
Title of Computer Science Ambassador, 2008 - 2009 & 2010 - 2012
Student Engineers' Council, 2008 - 2011

Publications

Juan Burgos, Jory Denny, Nancy M. Amato, "Improving Roadmap Quality through Connected Component Expansion," Technical Report, TR13-003, Texas A&M University, Apr 2013.

Samuel Rodriguez, Jory Denny, Juan Burgos, Aditya Mahadevan, Kasra Manavi, Luke Murray, Anton Kodochygov, Takis Zourntos, Nancy M. Amato, "Toward Realistic Pursuit-Evasion Using a Roadmap-Based Approach," In Proc. IEEE Int. Conf. Robot. Autom. (ICRA), pp. 1738-1745, May 2011.

Sam Ade Jacobs, Kasra Manavi, Juan Burgos, Jory Denny, Shawna Thomas, Nancy M. Amato, "AScalable

Method for Parallelizing Sampling-Based Motion Planning Algorithms," In Proc. IEEE Int. Conf. Robot. Autom. (ICRA), pp. 2529-2536, St. Paul, Minnesota, USA, May 2012.

Samuel Rodriguez, Jory Denny, Aditya Mahadevan, Jeremy (Cong-Trung) Vu, Juan Burgos, Takis Zourntos, Nancy M. Amato, "Roadmap-Based Pursuit-Evasion in 3D Structures," In Proc. of 24th Intern. Conf. on Computer Animation and Social Agents (CASA), 2011, in Transactions on Edutainment, pp. to appear, May 2011.

References Available Upon Request