

# 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,  $\text{\LaTeX}$ .

## Relevant Experience

- |   |   |                                |
|---|---|--------------------------------|
| <b>Staff Software Engineer</b>  | <b>IBM Corporation<br/>Durham, NC</b>                       | <b>August 2016 - Present</b>   |
| <ul style="list-style-type: none"><li>• Working with international team to integrate data-analytics functionality into the IBM Cloud Pak for Multicloud Management performance monitoring product.</li><li>• Developing a dockerized micro-service that manages customer configurations for data-analytics functionality.</li><li>• Supporting multiple backend Ruby on Rails endpoints, maintenance of Apache and Haproxy servers, and inter-service integrations for SaaS products.</li><li>• Working directly with DevOps and Infrastructure teams to resolve customer issue.</li><li>• Implemented two Lua-based Haproxy plugins, for separate SaaS offerings, 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.</li></ul> |   |                                |
| <b>Backend Engineer</b>   | <b>IBM Corporation<br/>Durham, NC</b>                       | <b>July 2014 - August 2016</b> |
| <ul style="list-style-type: none"><li>• Lead Ruby on Rails developer on our backend endpoint that manages the creation, modification, and destruction of SaaS subscriptions and integration with other services.</li><li>• Implemented backend scripts in Ruby, Perl, and Bash that supported E2E SaaS subscription life-cycle flows.</li><li>• Implemented web interface providing users with monitoring agent, configuration package, and development tool download capability.</li><li>• Supported infrastructure team in the introduction of new API flows.</li><li>• Assisted SaaS Operations team during product releases.</li></ul>  |   |                                |
| <b>Software Engineer</b>  | <b>IBM Corporation<br/>Durham, NC</b>                       | <b>July 2013 - July 2014</b>   |
| <ul style="list-style-type: none"><li>• Designed and developed a new Ruby on Rails agent for the Application Performance Monitoring on SaaS product.</li><li>• Daily interaction with global test teams to address bug reports and new feature requests.</li><li>• Assisted in the development of other monitoring agents (i.e. MongoDB, PHP).</li></ul>  |   |                                |
| <b>Undergraduate Researcher</b>   | <b>Parasol Lab at Texas A&amp;M<br/>College Station, TX</b> | <b>June 2010 - May 2013</b>    |
| <ul style="list-style-type: none"><li>• Conducted research in the area of Sampling Based Motion Planning (SBMP) under the guidance of Dr. Nancy Amato.</li><li>• Worked on multiple research papers and completed senior research thesis as part of my B.S. Computer Engineering degree plan.</li><li>• Attended multiple research seminars and a Computing conference in Washington D.C.</li></ul>   |   |                                |

**Matlab Tutor****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, "*A Scalable 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**