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| **Miguel Velez** |  | **Website** mijecu25.com/miguelvelez/  **LinkedIn** linkedin.com/in/miguelvelezmj25  **GitHub** github.com/miguelvelezmj25  **Email** vele7090 [at] gmail [dot] com |
| Research interests | | |
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| Software Engineering, Programming Systems, and Programming Languages. Special interest in the development and optimization of software tools to aid the work of scientists and developers. | | |
| Education | | |
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| **University of St. Thomas** Bachelor inComputer Science, Physics Minor Advised by Patrick Jarvis 2010 – 2015  Summa Cum Laude: *Current and Future Relationships Between Robots and Humans.* GPA: 3.99/4.00 | | |
| Research Experience | | |
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| **Research Intern – Massachusetts Institute of Technology** June 2015 – August 2015   * Implemented features in Sketch that increased its expressiveness and made it more powerful.   **Computer Science Undergraduate Research Student – UST** August 2014 – December 2015   * Parallelized sequential reachability algorithms to increase the efficiency of analyzing source code. * Enhanced WAH compression technique to query faster and more efficiently with two sets of metadata.   **Computer Science & Chemistry Undergraduate Research Student – UST** February 2014 – May 2014   * Implemented a programming language that analyzed user input related to organic chemistry. | | |
| Publications | | |
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| * **Miguel Velez** and Jason Sawin. Parallelizing Sequential Reachability Algorithms. *Inquiry at UST Poster Session,* May 2016. (to be submitted). * **Miguel Velez** and Jason Sawin. Faster WAH Compression Querying through the Use of Metadata. *Consortium for Computing Sciences in Colleges Midwest Region Poster Session,* October 2015. **1st place Discovery Track.** * **Miguel Velez** and Armando Solar-Lezama. Simpler Implementation of Sketches through Enhanced Expressiveness. *MIT Summer Research Poster Session 2015,* August 2015. * **Miguel Velez**, Peter Gittins, and Jason Sawin. Extending SMILES to Encode Reaction Mechanisms. *Inquiry at UST Poster Session,* May 2014. | | |
| Honors and Recognitions | | |
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| **MSRP Research Internship at MIT** 2015 (10.5% acceptance rate)  **CCSC:MW 2015 1st place Student Posters & Showcase Discovery Track** 2015  **UST Student Travel Grant** 2015  **UST Collaborative Inquiry Grant** 2014, 2015  **International Student Leadership Scholarship** 2012  **Bev and Pat Flaherty Scholarship** 2011 – 2014  **Dean’s Honor List** Fall 2010 – Fall 2015  **University of St. Thomas International & Tuition Scholarship** 2010 – 2015  **American Field Service International Scholarship** 2008 – 2009 | | |
| Professional Experience | | |
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| **Application Developer/Software Engineer – Sportradar US** August 2015 – Present   * Implemented Ruby monitoring applications to parse and build Formula 1 feeds.   **Jr. Application Developer – Sportsdata/Sportradar US** February 2015 – May 2015   * Developed Ruby applications to monitor and parse Major League Baseball feeds.   **Cloud Developer Intern – Valtira, LLC** February 2013 – January 2015   * Implemented and maintained web applications with Java servlets, AngularJS, and MySQL databases. | | |
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| Side Projects | | |
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| **Dsa**  Implementation of data structures and algorithms  **Cubie Cruiser**  2D endless runner game focused on avoiding obstacles  **cstats**  Generator of file system statistics |  | **Personal Backup**  Software tool to backup folders and files  **Urban Tennis**  First full game published for the web  **Unity Game Development Manual**  Guide of the basics of Unity game development |
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| Activities | | |
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| **Game Design Club** 2014 – 2015  **Computer Science Consultant**  2012 – 2015  **Computer Science Club** 2011 – 2015  **Globally Minded Student Association** 2010 – 2015  **Note taker** 2013, 2015 |  | **STAR President** 2012 – 2013  **STAR Intern** 2011 – 2012  **2 STEM Learning Communities** 2011  **Morrison Hall Council** 2010 – 2011  **Spanish Tutor** 2010 – 2012 |
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| References | | |
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| **Jason Sawin**  Department of Computer & Information Sciences  University of St. Thomas  jason.sawin [at] stthomas.edu  +1 651 962 5478  **Armando Solar-Lezama**  Department of Electrical Engineering and Computer Science  Massachusetts Institute of Technology  asolar [at] csail.mit.edu  +1 617 258 9727 |  | **Patrick Jarvis**  Department of Computer & Information Sciences  University of St. Thomas  pljarvis [at] stthomas.edu  +1 651 962 5482 |