Miguel Velez

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Skills

Java, Python, Ruby, C#, MySQL, Unity

Education

University of St. Thomas Computer Science Fall 2010 – Fall 2015
Minor: Physics **GPA:** 3.99/4.00 **CISC/MATH GPA:** 4.00
Summa Cum Laude *Current and Future Relationships Between Robots and Humans*

Relevant coursework: Data Structures, Algorithms, Databases, OS, Networking, Architecture, AI & Robotics, Information Security, Applied Statistics, Multivariable Calculus

Work Experience

Research Intern – Massachusetts Institute of Technology June 2015 – August 2015
- Implemented features in Sketch that increased its expressiveness and made it more powerful.
- Simpler Implementation of Sketches through Enhanced Expressiveness *MIT Summer Research Poster Session 2015*.

Application Developer/Software Engineer – Sportradar US February 2015 – Present
- Developed Ruby monitoring applications to parse and build Major League Baseball and Formula 1 feeds.

Computer Science Undergraduate Research Student – UST August 2014 – Present
- 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.
- Faster WAH Compression Querying through the use of Metadata *CCSC:MW 2015*. **1st place Discovery Track.**

Computer Science & Chemistry Undergraduate Research Student – UST February 2014 – May 2014
- Implemented a programming language that analyzed user input related to organic chemistry.
- Extending SMILES to Encode Reaction Mechanisms *Inquiry at UST, May 2014*.

Cloud Developer Intern – Valtira, LLC February 2013 – January 2015
- Implemented and maintained web applications with Java servlets, AngularJS, and MySQL databases.

Side Projects

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

Honors and Recognitions

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
University of St. Thomas International & Tuition Scholarship 2010 – 2015
American Field Service International Scholarship 2008 – 2009

Activities

Game Design Club 2014 – Present
Computer Science Consultant 2012 – Present
Computer Science Club 2011 – Present
Globally Minded Student Association 2010 – Present
Note taker 2013, 2015
STAR President 2012 – 2013
2 STEM Learning Communities 2011
Spanish Tutor 2010 – 2012