

# Miguel Velez

## Skills

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Java, Python, C#, MySQL, Unity

## Education

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**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

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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.
- 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. 1<sup>st</sup> 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

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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

## Honors and Recognitions

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**MSRP Research Internship at MIT 2015** (10.5% acceptance rate)

**CCSC:MW 2015 1<sup>st</sup> 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

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**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**

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