

# Miguel Velez

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**GitHub** [github.com/miguelvelezmj25](https://github.com/miguelvelezmj25)

## Skills

Java, Python, 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.*

**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.

**Jr. Application Developer – Sportradar US** February 2015 – May 2015

- Developed Ruby applications to monitor and parse sport feeds.

**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

### stats

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)

**UST Collaborative Inquiry Grant** 2014, 2015

**International Student Leadership Scholarship** 2012

**Bev and Pat Flaherty Scholarship** 2011 – 2014

**Dean's Honor List** Fall 2010 – Present

**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

**STAR President** 2012 – 2013

**2 STEM Learning Communities** 2011

**Morrison Hall Council** 2010 – 2011

**Spanish Tutor** 2010 – 2012

