

Ismael ‘Izzy’ Gomez

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Education

Massachusetts Institute of Technology

Cambridge, MA

Candidate for Bachelor of Science in Computer Science and Engineering

Expected 2017

Select Coursework: Algorithms and Data Structures (Intro/Adv*), Computer System Engineering*, Network and Computer Security*, Artificial Intelligence, Software Engineering (Java, Web), Computational Structures

Experience

AlphaSights

New York, NY

Software Engineer

January 2016

- o Interned during the month-long winter term between semesters. Worked alongside the software engineering team on an in-house app built on Ember.js on the frontend and Rails on the backend.

Various Research Groups at MIT Labs

Cambridge, MA

Undergraduate Researcher in {A: CSG @ CSAIL, B: CP @ Media Lab}

Spring - Summer 2015

- o A: Tested and debugged the compiler of a Fresh Breeze multiprocessor chip, which is an architecture simulated in Java optimized for high-performance, parallel computation
- o A: Designed and refactored a benchmark program implementing the Hartree-Fock method, a quantum mechanics approximation algorithm, in a functional-programming variant of Java
- o B: Developed and programmed interface between an algorithmic analysis package in MATLAB to a prototype hardware system of modular, pressure-sensitive sheets run using an Arduino and ATmega8 boards
- o B: Model k-means clustering algorithm to identify individual footsteps on the pressure-sensitive sheets; analyze footsteps and corresponding centroids to predict walking behavior

Pololu Corporation

Las Vegas, NV

Electrical and Software Engineer

Summer 2014

- o Designed and tested printed circuit board for *A4990 Dual Motor Driver Shield for Arduino* using Altium PCB Designer, Git, and various hardware testing tools
- o Developed corresponding *Arduino software library*, simplifying use of Shield with brushed DC motors; final product solved issue of providing inexpensive motor driver capabilities to the Arduino platform

Leadership

Theta Delta Chi Fraternity

Cambridge, MA

House Manager

Fall 2014 - Fall 2015

- o Managed fraternity-wide efforts to maintain, repair, and renovate a five-story property; coordinated and budgeted renovations with local government inspectors and independent contractors

Skills

Languages: Python, Java (Eclipse, Android Studio), Javascript (Node, jQuery, Ember), Common Lisp*, HTML/CSS (Liquid, EJS, Sass), Assembly*

Tools: MongoDB (Mongoose), Heroku, L^AT_EX, Git, Bash, Linux (Kali, Ubuntu), Windows 8/10

Interests: Artificial Intelligence, WebDev, Personal Analytics, Productivity Apps, Dance*, Soccer

*in progress