Miguel Medrano

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Education MASSACHUSETTS INSTITUTE OF TECHNOLOGY

June 2017

Candidate for B.S. in Computer Science & Engineering, GPA: 3.5

Cambridge, MA

• Relevant Courses: Software Studio, Elements of Software Construction, Machine Learning, Introduction to Algorithms, Computer Systems Engineering

Experience

MIT UNDERGRADUATE RESEARCH OPPORTUNITIES PROGRAM

January 2016 – Present

Undergraduate Researcher, Computational Biology Group of MIT CSAIL & Broad Institute

• Developing Python/Flask web app and pipeline on cloud computing software to make visualizations and analysis of chromatin-state models available for third-party epigenomic ChIP-seq datasets.

STATE FARM

June 2015 – August 2015

Software Intern, Platform Innovation Team

Bloomington, IL

Cambridge, MA

- Created a Tomcat server blueprint for use in automation of server provisioning using Puppet. This open-source version replaced a previous licensed version of a TcServer blueprint, saving the company costs with licensing.
- Contacted other company teams to report dependencies on past blueprint and possible impacts on using the replacement.
- Directed daily stand-ups for intern team.

CUROVERSE

January 2015 - January 2015

Software Extern, Science Team

Boston, MA

• Built Bowtie2 and SAMtools pipelines to facilitate input of files and settings through a web application for user-friendly data processing and were launched for production in the company's bioinformatics platform, Arvados.

MIT MOMENTUM PROGRAM

January 2014-January 2014

Student

Cambridge, MA

- Produced prototype for altered quad-copter in a team of four students by implementing engineering design principles to add external circuitry.
- Designed circuit using an Arduino and carbon nanotube chemi-resistors in order to detect a varying resistance in the presence of ammonium.
- Presented final design to industry representatives and team won 2nd place out of eight teams.

Leadership/ Activities

MIT LATINOS IN SCIENCE & ENGINEERING

January 2014 – May 2015

Vice President of Marketing

Cambridge, MA

Cambridge, MA

• Managed group website and publicized events through posters, social media, and emails, achieving a consistent meeting attendance averaging 25 members.

MIT LA UNIÓN CHICANA POR AZTLÁN (Latino Cultural Group) Chicano Grad Co-Funding Chair

August 2014 – May 2015

• Reached out to campus organizations, departments, and alumni to raise funding for the group's senior graduation ceremony. A total of \$5,000 were raised with a significant surplus of \$1,000.

MIT Spanish House Living Group

January 2014 – December 2014

Treasurer

Cambridge, MA

 Maintained successfully a financial record for a living community of 30 members by keeping an updated database of all receipts for the group's meal plan. Updates were done once a month in which about 40 receipts were processed.

Awards

State Farm Speech Competition Finalist Team, For top 2 teams out of 21 in pitch presentations.

2015

Google Generation Scholar, For academic achievement and passion for computer science.

2013

Skills Software: Python - proficient, Java - proficient, JavaScript - intermediate, Bash - novice,

Node.js, Express.js, Flask, MongoDB, HTML/CSS, JQuery, Ajax, Puppet, Linux, Git, LaTeX

Languages: Spanish-Native Speaker, English-Fluent, French-Beginner