

Raúl Boquín Curriculum Vitae

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Education

Massachusetts Institute of Technology (MIT)

Cambridge, Ma

Candidate for Bachelor of Science in Math with Computer Science June, 2017

Relevant coursework: Software Construction, Discrete Mathematics, Advanced Algorithms, Computational Thinking and Data Science, Educational Theory and Curriculum, Computer Games and Simulations for Education, Statistics for Applications

Research Interests

Investigations to improve educational technology, software, and curriculum development and understand how technology affects a student's ability and accessibility to learn

Research Experience

Undergraduate Research in Imagination, Computation, Expression (ICE) Lab:

Educational Software: Mazzy/MazeStar

Cambridge, Ma

Student Researcher, Content Developer

Sept 2016-Pres

- Interpreted research in identity politics, sociology, and virtual identities to develop new content that was consistent with the software's computational structure
- Assessed the effects of aesthetics, user interface experiences, and new content by analyzing the causes and effects of the user's identity and way of expression when using the system

Undergraduate Research in Scheller Teacher Education Program (STEP) Lab:

Educational Software: Gameblox

Cambridge, Ma

Student Researcher, Content Developer

Sept 2015-Pres

- Actively Conducted research on ways users could learn programming, problem-solving, and information from Gameblox software and other types of educational technology
- Spearheaded development of Gameblox training manuals, Gameblox Wiki, and training modules for users
- Devised testing suite for software implementations
- Developed Curriculums with New Hampshire Public School Teachers

Undergraduate Research in MITx Educational Tech Course

Cambridge, Ma

Student Researcher, Teaching Assistant, and Forum Moderator

Sept-Dec 2014

- Participated in development of one of first four online open courses for MITx Ed Tech Department as well as design of the launch of the course
 - Moderated and discussed forum activity of the course with other staff in order to make the course stronger and efficient
 - Interacted with students and assisted in their writing and educational technology pitches and also participated in the course as a student
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Teaching and Mentoring Experience

Curriculum Design: MIT Codeit

Cambridge, Ma

Content Developer, Teacher

Sept 2016-Pres

- Adapted a Scratch Curriculum to contain computational thinking curriculum
- Developed content for new teachers to facilitate their transition into learning the Codeit Curriculum by developing manuals and guides for new teachers
- Instructed a six-week computer science class to a group of middle school girls with purpose of increasing their enthusiasm and interest in computer science

Teaching and Mentoring Experience (Continued)

Global Teaching Lab: Korea

Seoul and Jeju, South Korea

Curriculum Developer, Teacher

January, 2017

- Developed and taught Mechanical, Electrical, and Computer Engineering Workshop for students at the Korea International School

MIT Office of Undergraduate Advising

Cambridge, Ma

Associate Advisor

Sept 2014-Pres

- Supported the freshmen class of 2018, 2019, and 2020 in balancing academic workload, helping them pick classes, and being a resource for mental health
- Collaborated with faculty advisor to give best advising experience for freshmen
- Pushed for mental health and cultural programming in Associate Advisor Training

MIT Edgerton Outreach

Cambridge, Ma

Teaching Assistant

Sept 2013-Pres

- Assisted in the teaching of various 20-30 student workshops on STEM, including building circuitry, understanding mechanics of cars and bicycles, and exploring chemistry
- Set up workshops by engineering the tools needed to facilitate them

The Academy at Harvard Square

Cambridge, Ma

Teacher

June-July 2016

- Coordinated and implemented 2-day computer science in class in 2016 to a group of international Korean students

Bridge to Enter Advanced Mathematics

New York, NY

Teaching Assistant, Teacher, Recreational Coordinator/Counselor

June-Aug 2015

- Co-developed curriculum for teaching number theory, topology, and New York High School Entrance Exam; assisted in teaching these curriculums
- Coached students and led lessons on mathematic topics important in algebra and geometry; worked with students in one on one settings
- Coordinated Field Day and Recreational Camp activities for students, with purpose to build a more enthusiastic community to learn mathematics in

Intro to Physics: Classical Mechanics

Cambridge, Ma

Teaching Assistant

Sept-Dec 2014

- Assisted in teaching MIT Physics class during lectures, recitations, and office hours
- Clarified concepts to a specific group of students, graded homework, and gave feedback based on problem sets and exams

Presentations

MIT Division of Student Life: On MIT Student Life

Cambridge, Ma

Oct 6, 2016

- Motivated a workshop for 100-150 staff members by leading a presentation on student life and the effects of the Division of Student life

MIT Multicultural Conference (Workshop Presentation)

Dedham, Ma

Feb 10, 2015

- Facilitated a workshop on privilege, identity, and identity politics

Honors and Awards

Stephen A. Berenson (1982) Scholarship Award: 2014-2015, 2015-2016, 2016-2017

Multicultural Banquet- Unsung Hero Award: 2016

Freshman Distinguished Achievement Award in Diversity and Culture: 2014

University Service

MIT LeaderShape

March 2017

Cluster Facilitator

- Motivated a group of students to develop visions and goals for their passions

MIT Latino Cultural Center

2015-Pres

Vice President, Treasurer

- Operated programming of large-scale community events, such as *Gala Sabrosura*, with purpose of strengthening ties across all of MIT community with theme of celebrating Latinx and other underrepresented communities
- Proposed new leadership and programming that integrated more opinions and voices into community
- Doubled the amount of funding as Treasurer through more cohesive events and applications for funding

QuestBridge

2014-Pres

MIT Liaison (2014-2015), National Ambassadors Executive Board (Present)

- Implemented an Executive Board for the MIT QuestBridge Scholars Network
- Programmed various toolkits to assist QuestBridge Scholars to actively participate in high school outreach to get more low income and underrepresented students to apply to higher level schools

MIT Martin Luther King Celebration Committee

2015-Pres

Committee Member

- Represented the student perspective in a Presidential Committee comprised of the MIT Office of Government and Community Relations, Institute of Community and Equity Office, and Human Resources
- Oversaw committee member selection, march that preludes celebration, and logistics of celebration and emceed Award Night

MIT Office of Undergraduate Advising

2014-2016

Advising Committee Member

- Served a 2-year term as a student advisor to Dean Julie Norman and Undergraduate Advising Staff on various undergraduate issues, including mental health, state of undergraduate research, dorms and living groups, diversity, and academics

MIT Multicultural Conference

2015-2016

Planning Committee Member

Skills

Computational: Java, JavaScript, HTML, Matlab, Python, Latex

Computer Aided Design: Canvas, Audacity

Language: Spanish (Fluent)