

# NAVRAJ NARULA

<http://navierula.github.io>

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## INTERESTS

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Information retrieval via applications of text mining, natural language processing, and sentiment analysis / Assistive technology in SpEd and non-SpEd settings / Incorporation of social media in marketing, business, and teaching / Hackerspace innovation and collaboration / Creative storytelling (both in fiction and in numbers)

## EDUCATION

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**B.A. in English Literature and Computer Science**  
*Boston University College of Arts and Sciences Boston, MA*

*May/December 2016*

**B.S. in Secondary English Education**  
*Boston University School of Education Boston, MA*

*May/December 2016*

## SKILLS

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**Programming Languages:** Python, HTML, SQL (Fluent), CSS, Java, Javascript, Haskell, C (Learning)  
**Spoken Languages:** English, Thai (Native), Punjabi (Comfortable), Spanish (Beginner)

## EXPERIENCE

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**Data Storytelling Researcher**, *Boston University Directed Study - Boston, MA* *January 2016 - Present*

- Supervised by: Dr. Maggie Mulvihill, Journalism Professor and Faculty Fellow at Hariri Institute for Computing and Computational Science
- Create searchable database of criminal conviction reversals in Massachusetts, over the past 5 years
- Design a final report on findings via means of querying, with aims of being published by a local newspaper

**Technical Education Intern**, *Cambridge Community Television - Cambridge, MA* *July 2015 - Present*

- Provide one-on-one assistance to community members in technical areas: programming, image/content editing, Office or iWork navigation, and general computer assistance for elders over the age of 50
- Enroll in CCTV-offered classes to further knowledge of software individuals may be working with
- Build templates in HTML/CSS/Javascript to distribute to lab attendees as starting point for projects
- Handle issues of classroom misconduct via mediation between individuals or private conversation

**Course Grader**, *Boston University Computer Science Dept - Boston, MA* *January 2015 - Present*

- Course: CS105 - Introduction to Databases and Data Mining, taught by Dr. Dave Sullivan
- Provide numeric grades for assignments related to: Python programming, SQL query plans, data extraction, file manipulation, Weka data mining
- Outline grading reports for instructor, specifying students who may require extra assistance

**Catalyst Editor**, *The Daily Free Press - Boston, MA* *September 2014 - Present*

- Revise science/tech-related articles, matching edits according to standard AP style
- Conduct interviews with individuals and document recorded transcriptions for feature pieces
- Maintain contact with up to 50 staff writers during story assignment up until point of publication, offering input and edits along the way

**Desktop Support Assistant**, *Boston University Computer Science Dept - Boston, MA* *May 2013 - Present*

- Reboot Linux and Window machines during package loss, marking machine name in Nagios log
- Provide assistance to supervisor in regards to software installation and hardware maintenance
- Create computer science accounts for declared majors and any undergraduate student enrolled in a computer science course
- Offer one-on-one assistance to students experiencing difficulty in introductory courses

**Support Intern**, *Boston Collegiate Charter School - Dorchester, MA* September 2014 - November 2014

- Mediated discussion circles in tenth grade English literature class
- Assisted with after school tutoring sessions in all subjects, focusing on English language learners
- Answered phone calls, greeted guests, and performed general administrative duties at the main office

**Research Intern**, *The Center for Education Reform - Washington, DC* June 2014 - August 2014

- Maintained and updated databases with information pertaining to all charter schools within the USA
- Contributed to Edspresso by writing blog posts related to educational policy
- Planned event featuring self-selected panelists and opened up invitation to all interns in the metro area interested in pursuing a career in educational policy

**Assistant Teacher**, *Bowman Elementary School - Lexington, MA* September 2012 - December 2012

- Provided one-on-one reading lessons to third grade students experiencing difficulty
- Graded assignments and returned them promptly within the day
- Planned and delivered a lesson plan on the water cycle to a classroom of third-graders, with the aid of a self-created website. See: <http://wayofwater.weebly.com>

## TEAMS AND PROJECTS

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**Systems Analyst**, *Global App Initiative (GAI) - Boston, MA* September 2015 - Present

GAI is an on-campus organization at Boston University that trains students to develop mobile-web applications for local non-profits. My team and I are working to create an anonymous Q and A forum for the Boston Public Health Commission, coding for Android (Java) and iOS (Swift) devices. Alongside programming, I maintain our Github repositories. My partner and I are working to create the iOS app using XML.

**Independent Research**, *Sentiment Analysis via Twitter Data* July 2015 - Present

With the aid of Professor Nik Brown (Northeastern University), I gathered tweets hashtagged with trending topics using the tweepy library in Python. I then developed a text classification model to categorize 50 random sentiments into either a positive or negative category, done so by keeping track of various dictionaries. Accurate results were displayed by means of a self-implemented sentiment score algorithm. Still a work-in-progress. See:  
<https://navrajnarula.files.wordpress.com/2015/02/sentiment-analysis.pdf>

**Software Engineering Project - Step**, *Boston University - Boston, MA* September 2015 - December 2015

My classmates and I worked together to develop an algorithm that would generate the most "beautiful" path as opposed to the most optimal path. Our algorithm is a variation of Dijkstra's algorithm, which prioritizes the shortest path as defined by the user. See:  
<https://github.com/jmuru/cs411/blob/master/README.md>

## LEADERSHIP ROLES

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**Vice President of Internal Affairs**, Boston University College of Arts and Sciences

**Peer Mentor and FY101 Instructor**, Boston University College of Arts and Sciences

**First-Year Student Outreach Project Staff Leader**, Boston University Community Service Center

**Admissions Ambassador**, Boston University Admissions

**Admissions Student Diversity Board**, Boston University Admissions

## AWARDS

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**Ford Foundation Travel Scholarship**, invitation to participate in journalism and virtual reality hackathon organized by MediaShift in Los Angeles

**Joan Dee and Boyd Dewey Book Award**, Boston University School of Education

## PUBLICATIONS

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**Harvard Summer Review, Issue 19**, Septimus Warren Smith: Woolf's Hide-and-Seek Target

**Boston University WR Journal, Issue 5**, The Epiphany as the Evanescent Moment: Flashes of Unintellectual Light in James Joyce's *Dubliners*