

NAVRAJ NARULA

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http://navierula.github.io

PROJECTS

Markov Text Generation on Poetry

Devised baseline and advanced algorithm to generate coherent text based off haikus, conducted 74-participant survey, and demonstrated an error rate of < 30% on selected outputs // Python, NLTK

Sentiment Analysis of Trending Tweets

Accessed tweets via API and categorized trending topics under positive or negative category based on self-devised scoring algorithm // Python, tweepy, Twitter API

Social Media Web Application on Travel

Built a website allowing users to create profiles and list ideal travel destinations, displayed data based on user-generated content // Python, SQL, HTML, CSS

Google Search Engine Replica

Developed client program allowing users to create, modify, and interact with an encyclopedia database, results returned based on cosine similarity score // Java

SKILLS

Programming

Backend: Python, Java, C, Haskell

Data: R, SQL, pandas, OpenRefine

Web: HTML, CSS, JavaScript, jQuery, Ruby on Rails, Flask

Platforms: Jupyter Notebook, Git, Shell

Languages

English, Thai, Punjabi

Leadership

Admissions Student Diversity Board, Vice President of Internal Affairs, Peer Mentor

FAVORITE CLASSES

Natural Language Processing, Computer Systems, Introduction to Databases and Data Mining, Writing of Fiction

EDUCATION

M.S. in Computer Science and Journalism

Columbia University

Expected May 2018

Maxwell Geffen Scholarship Recipient

B.S. in Computer Science, Literature, and Secondary Education

Boston University

Completed May 2016

Joan Dee and Boyd Dewey Book Award

Ford Foundation Hackathon Grant Attendee

EXPERIENCE

Teaching Assistant

Columbia Engineering

Sept 2016 – Current

Selected as 3 of 10 teaching assistants to lead lab recitations for Computing in Context (Python), assisted students in social sciences context with API calls, pandas, and visualizations, held weekly office hours, answered Piazza questions, and graded homework assignments

Digital Products Engineering Intern

MIT Press

May – July 2016

Implemented functions in Python script to automate ePub creation, validated parsing errors across XML/HTML documents, bookmarked PDF textbook files, worked with Oxygen XML Editor and Sigil-Ebook platform

Data Storytelling Researcher

BU Hariri Institute for Computing

Jan 2016 – May 2016

Designed taxonomy and implemented a relational database in MySQL Workbench to store info about criminal case reversals, worked with faculty member in journalism dept. to deliver report on functionality of search and how to perform robust queries

Technical Education Intern

Cambridge Community Television

July 2015 – May 2016

Assisted senior citizens with programming, image/video editing, and general Internet navigation, completed video and audio editing class to assist members working with Final Cut Pro, left each person with an easy-to-understand solution if they encounter a similar issue at home

Grading Assistant

BU Computer Science Dept.

Jan 2015 – May 2016

Graded assignments in Python, SQL, and Weka for Introduction to Databases and Data Mining, asked to return for following semesters due to timely work and extensive comments on code