

NAVRAJ NARULA

Email: nnn2112@columbia.edu

Website: <http://navierula.github.io>

Twitter/Github: NavieRula

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, OCaml
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, Programming Languages and Translators, and Writing of Fiction

EXPERIENCE

Teaching Assistant

Sept 2016 - Current

Columbia Engineering, New York, NY

* Computing in Context (Fall 2016)

* Introduction to Computing for Engineers and Applied Scientists (Spring 2017)

Help students understand control flow, functional design, and complex libraries using Python, hold weekly office hours and answer questions on Piazza, previously selected as 3 of 10 course assistants to lead lab recitations

Digital Products Engineering Intern

May 2016 - July 2016

MIT Press, Cambridge, MA

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

Jan 2016 - May 2016

BU Hariri Institute for Computing, Boston, MA

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

July 2015 - May 2016

Cambridge Community Television, Cambridge, MA

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

Jan 2015 - May 2016

BU Computer Science Department, Boston, MA

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

Research Intern

June 2014 - Aug 2014

The Center for Education Reform, Washington, DC

Maintained and updated database for U.S. charter schools, wrote blog posts, organized a downtown panel for locals interested in education reform

EDUCATION

Columbia University, New York, NY

May 2018

Master of Science, Computer Science and Data Journalism

Boston University, Boston, MA

May 2016

Bachelor of Science, Computer Science and English Education