

NAVRAJ NARULA

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INTERESTS

Natural Language Processing // Data Manipulation and Visualization // Python Programming // Backend Engineering // Hackerspace Innovation // Teaching

PROJECTS

Markov Text Generation on Poetry

Devised baseline and advanced algorithm to produce coherent text based off Richard Wright's poetry, conducted 74-participant survey that demonstrated an error rate of < 30% on selected outputs // Python, NLTK

Superhero and Archenemy Relational Database

Created a database consisting of 11 relations depicting comic book relationships, wrote 1000+ lines of code to manipulate insertion, deletion, and selection, queried entries using relational algebra // SQL, SQL Workbench, Python

Sentiment Analysis of Trending Hashtags on Twitter

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

Google Search Engine Replica

Developed client program that allows users to create, modify, and interact with an encyclopedia database, returning results based on cosine similarity calculation // Java

EXPERIENCE

Course Assistant – Computing in Context (Python) Columbia Engineering – New York, NY

Current

Selected as 3 of 10 course assistants to lead lab sections of 20+ undergraduates, engage with students in office hours and on Piazza, grade 100+ assignments

Digital Products Engineer MIT Press – Cambridge, MA

Summer 2016

Implemented functions in Python script to automate ePub creation, validated parsing errors in XML/HTML documents, bookmarked PDF textbook files

Data Storytelling Researcher Boston University Computer Science – Boston, MA

Spring 2016

Created schema and implemented a relational database using MySQL Workbench to store information regarding criminal case reversals

Course Grader – Intro to Databases and Data Mining Boston University Computer Science – Boston, MA

Spring 2015 – 2016

Graded assignments in SQL, Python, and Weka

SKILLS

Python, Java, C, Haskell // HTML, CSS, Bootstrap, JavaScript, Flask, Ruby on Rails
// R, SQL, NoSQL // Git, Jupyter Notebook, Shell

EDUCATION

M.S. in Computer Science and Journalism Columbia University – New York, NY

Spring 2018

B.A. in Computer Science Boston University – Boston, MA

Spring 2016