#### SHRIYA DHAUNDIYAL

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### **EDUCATION**

# Northeastern University, Boston, MA

**Expected December 2023** 

Master of Science in Computer Science

**GPA** (4.0/4.0)

**Related courses:** Discrete Structures, Data Structures and Algorithms, Object Oriented Design, Computer Systems, Database Management Systems, Web Development, Advanced Algorithms

Diversity Engagement: Grace Hopper Conference Scholar, Microsoft TEALS, Rewriting the Code, Women in Tech NEU

Awards: CS+Ethics Research Grant Recipient, Khoury Graduate Research Apprenticeship

### Manipal College of Dental Sciences, MAHE, Manipal, India

Graduated with a Bachelor of Dental Surgery with Distinction

September 2020 GPA (4.0/4.0)

### TECHNICAL SKILLS

- **Programming languages**: JAVA, Python, C, SQL, JavaScript, HTML, CSS.
- **Frameworks/Technologies**: Agile, Linux, Agile, Linux, React.js, Node.js, Bootstrap, NumPy, Pandas, Matplotlib, Tweepy, Selenium, JUnit, PyUnit, Git, MySQL, MongoDB
- Certifications: Advanced Python, Advanced Java, Data Structures and Algorithms.

#### **PROJECTS**

# Photobook Animator | JAVA, SWING, OOP, HTML, JUnit | https://github.com/shriyadh/Photobook-Animator

- Developed a graphics-based photobook using Model-View-Controller, Adapter Class and Object-Oriented design pattern which allows console inputs to the controller to create an album based on user-specified descriptions.
- Designed the graphical-view using SWING with built-in functionality for scrolling, viewing snapshot information, and loading them from a menu button and web-page view using HTML with animation options and tested using Junit.
- Tested the project extensively with JUnit and achieved 100% implementation accuracy.

# Sliding Puzzle | Python, Turtle, OOP, PyUnit | <a href="https://github.com/shriyadh/Sliding\_Puzzle">https://github.com/shriyadh/Sliding\_Puzzle</a>

- Built a sliding puzzle game using Turtle graphics with Object-Oriented design pattern and tested it using PyUnit.
- Designed additional features for better user-experience for loading puzzles, generating personalized puzzles, hint provision through reset functionality and trackability for the top 7 players through a leaderboard updating system.

# Algorithm Visualizer | Python, NumPy, Matplotlib, Tkinter, Pandas | https://github.com/shriyadh/sorting\_AlgoVisualizer

- Built a sorting algorithm comparator to aid visualization of workings of different classes of algorithms and time taken to sort through large datasets procured from Kaggle based on specified column using NumPy, Pandas and Matplotlib.
- Designed visualizer using Tkinter to display sorting on fixed dataset with option to choose the speed and algorithm.

# Twitter Bots | Personal Project | Python, Tweepy, PyUnit | https://github.com/shriyadh/Tweepy\_bot

- Developed an app using Tweepy that interacts with the API to get information about a Twitter user and their activity.
- Designed bots which allow the user to follow back recent followers and like tweets based on user-specified criteria.

## **WORK EXPERIENCE**

# Northeastern University, Boston

June 2022 – Present

 $Graduate\ Research\ Apprentice-Voice\ Assistants\ User\ Profiling\ Voice$ 

- Investigated the impact of voice assistant interactions on user profiling activities, the associated risks, and if there is disclosure of the same on privacy policy of leading technologies- Amazon Alexa, Google Assistant and Apple Siri.
- Designed test environments using Selenium and Python to probe the voice assistants for evidence of customization.
- Created control experiments to detect profiling and evidence of targeted advertising beyond third-party perspective.

# Graduate Research Assistant – Ethics in Computer Science

June 2022 – Present

- Examined how systemic-structural stereotypes from history have influenced the design of technology in the present.
- Investigated how bias permeates through algorithmic designs at different stages of developing predictive models for machine learning and examined existing models for improvements to prevent marginalization through skewed data.

# Graduate Teaching Assistant

January 2022 - Present

- Tutored over 250 students for Data Structures, Algorithms, Computer Systems, Object-oriented Design courses.
- Collaborated with the teaching team to maximize efficiency and learning patterns for students by adding visual components and interactive group assignments to the courses, increasing overall performance score by 49.5%.

#### SMASH x Northeastern, Boston

May 2022 - Present

- Designed an interactive curriculum for 47 Boston high school scholars from underrepresented groups for the CS elective of the program focusing on *Power of Algorithms and Potential for Equity and Inclusion*.
- Led a team of 5 to teach coding projects/content to increase interest and exposure to STEM careers among scholars.