

# MEDHA GUPTA

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2041 Dryden Road Houston, TX 77030

## EDUCATION

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### Rice University

Houston, Texas

Bachelor of Arts in Computer Science

May 2021

· minor in Neuroscience

**Relevant Coursework:** Algorithms and Data Structures · Tools & Methods for Data Science · Discrete Math

· Statistics for Data Science · Computational Thinking · Program Design · Functional Programming ·

Introduction to Tensorflow for Artificial Intelligence & Machine Learning (deeplearning.ai)

## SKILLS

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**Languages:** (*proficient*) Python (*intermediate*) Java, MATLAB, R (*novice*) Javascript

**Software & Frameworks:** Tensorflow, Keras, SQL, PySpark, UnrealCV, Habitat-SIM

## EXPERIENCE

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### Software Engineering Intern

May 2020 -

Facebook — Menlo Park, CA

### Computer Vision Intern

May 2019 - Aug 2019

Nod Labs — Menlo Park, CA

- Integrated a deep reinforcement learning algorithm for visual navigation to a target scene with Habitat-SIM, an artificial intelligence research environment
- Implemented Nelder-Mead optimization of the SLAM algorithm MapNet in Tensorflow, resulting in training of the model without backpropagation
- Developed Python scripts to explore a virtual scene from a variety of trajectories for generation of training datasets with UnrealCV

## PROJECTS

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### Raw Text Sequence Classifier — December 2019

Implemented RNNs with time warping and convolutional filtering, as well as feed forward networks to minimize loss and classify large datasets of raw text with an accuracy of over 85% using Tensorflow.

### Hidden Markov Models & Part of Speech Tagging (NLP) — April 2019

Implemented statistical learning of the HMM using a training corpus of pre-tagged sentences in Python and the Viterbi algorithm to assign part of speech tags using the trained HMM with accuracies of over 90%.

## LEADERSHIP & PROFESSIONAL DEVELOPMENT

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### Co-President — Design for America

April 2019 - Present

*DFA is a national organization that creates local social impact through human centered design.*

- Teach the human-centered design process to a design studio of 25-30 students including conducting user research, iterating on solutions via rapid prototyping, and sustainable implementation
- Communicate with non-profits in the Houston area and the national DFA organization in order to scope 5-7 design projects for the studio each semester
- Presented final prototypes for a DFA National Project to executives from the Fortune 500 company, Compass Group, and Design Fellows at the DFA Design Expo in April 2019