

# Apoorva Uppala

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## EDUCATION

**California State University Long Beach** | Long Beach, CA

January 2020 – May 2021

Master of Science in Computer Science

GPA (3.5/4.0)

**Courses:** Advanced topics in Programming Languages, Advanced Analysis of Algorithms, Advanced Software Engineering, Fault Tolerant Computing Systems, Data Visualisation, Pattern Recognition, Topics of Distributed Computing, Fundamentals of Web Semantics

## TECHNICAL SKILLS

**Languages** : Java, Python, SQL, C

**Databases** : MySQL, MongoDB

**Web Technologies** : HTML5, CSS3, JavaScript, Bootstrap, Django, jQuery, AWS EC2, Web Scraping, React, Express, Node.js

**Tools** : GitHub, Eclipse, JIRA, Jupyter

## WORK EXPERIENCE

**Graduate Teaching Assistant** | California State University, Long Beach

August 2020 – May 2021

- Instructing and assisting 60-70 students with Python, MySQL and tableau technologies, in addition to holding interactive sessions over zoom calls, for doubts and queries raised by the students.
- Conducting and grading students' quizzes as well as assisting the Professor with Research work.
- Technologies:** Python, Selenium, BeautifulSoup, Amazon EC2

**Trainee, Engineer** | Electronic Corporation Of India limited(ECIL)

July 2017 – August 2017

- Worked on an IOT based Data Logger System for industrial/home applications using an AVR microcontroller.
- Displayed data regarding fire, temperature
- Technologies:** C

## PROJECTS

**Semantic Data Generation**

February 2021 – May 2021

- Technologies:** Java, Java Apache Jena.
- Co-led a team in building the generic program which constructs the ontology for data fetched from data.gov.
- Analyzed the appropriateness of the relations and inconsistencies with Protégé.

**Web Scraping Rate my Professor Website from Scratch**

January 2021 – February 2021

- Technologies:** Python, Selenium, BeautifulSoup
- Built a web scraping tool to extract the reviews of all 5000 professors of California State University Long Beach from Ratemyprofessor.com website into a CSV file.

**Multi-Layer Perceptron with Backpropagation Network**

November 2020 – December 2020

- Technologies:** Python, Pandas, Numpy
- Developed a Multi-Layer Perceptron (M.L.P.) back-propagation network style of artificial neural network classifier. A Single M.L.P. was constructed with one hidden layer and one multi-class output layer. Code was written from scratch.

**Eye Gaze Data Visualization**

November 2020 – December 2020

- Technologies:** JavaScript, HTML, CSS, D3.js, Python.
- Fostered and developed interactive visualization using a dataset containing captured eye gaze recording during a human-computer interaction session. D3.js library was used to visualize data. Aimed to provide interactive visualization support to users in examining whether a particular trend/pattern is present.

**Creating Ensembles of Decision Tree**

September 2020 – November 2020

- Technologies:** Python, Pandas, Numpy.
- Created and shaped an automated Ensemble Decision Tree Builder and wrote a binary pattern recognition Decision Tree Ensemble using Builder using KRR training dataset. Built Two Decision Trees for the Ensemble, first with an initial selection of vectors and second with the same number but of boosted feature vectors.
- Streamlined an ensemble, structured as a weighted vote of two Decision Trees based on both the model's accuracy resulting in a boosted accuracy of 93%.

**Interactive Word Cloud**

September 2020 – November 2020

- Technologies:** Python, HTML, JavaScript, CSS, Git, Flask
- Implemented an interactive word that will display a word bigger and bolder if it often appears in the text and more critical.
- Developed a placement algorithm to find the correct position of the word so that multiple words won't overlap each other.

**Genetic Algorithm based clustering approach for WSN to optimize routing protocol**

January 2018 - May 2018

- Technologies:** Matlab
- Worked on Matlab to create a network based on the input given.
- Improvised an algorithm called LEACH-MH and created Genetic LEACH(Low Energy Adaptive Clustering Hierarchy) algorithm and later compared the routing factors of both to show how the genetic algorithm.