Rutvik Trivedi

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Rutvik-Trivedi

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ABOUT ME

NLP and Machine Learning Enthusiast. Particularly inclined towards the field of Linguistics and its computation.

EDUCATION

B.Tech., Computer Science and Engineering

National Institute of Technology, Puducherry
Karaikal, Tamil Nadu
India

Graduation, **July 2021**
CGPA: **9.11**
Course Projects: **3**

HSC Science

The K.P.E.S. English School
Gujarat State Education Board
Gujarat, India

Graduated, **May 2017**
Percentage: **86%**
Percentile Rank: **95%**

SSC Science

The K.P.E.S. English School
Gujarat State Education Board
Gujarat, India

Graduated, **April 2015**
Percentage: **94%**
Percentile Rank: **99.98%**

SKILLS

- **Machine Learning**
- **Python**
- **Github**
- C/C++
- Java
- **Natural Language Processing**
- **Data Analysis**
- **Tensorflow/Keras, Scikit-Learn**
- Octave
- Web Development (HTML, CSS, JS, PHP)

EXPERIENCE

NLP Engineer, SenseLoaf Technologies, Bangalore/Remote
February 2021 - Present

Machine Learning Intern, Wikilimo, Singapore(Remote)
June 2020 - July 2020

Python Development Intern, Bajaj Finance Limited, Akurdi - Pune
June 2019 - July 2019

Machine Learning Intern, Xomic Infotech Pvt. Ltd. (Ahmedabad), Work From Home
July 2019 - Present

Research Intern, IIT Mandi, Work From Home
May 2020 - Present

PROJECTS AND HIGHLIGHTS (ONGOING)

A working prototype of an Autonomous Humanoid

- This project aims to create a prototype of a humanoid robot (wheeled) which can carry out specific simple tasks based on voice input by the user.
- The features developed until now are:
    1) Small talk with the User and answering various queries
    2) Starting the conversation by face detection
    3) Follow a dynamic object using real-time image processing
- Features to be added:
    1) Integration with the hardware.
    2) Hardware programming for the mobility of the body parts.
- Technologies used: Python, OpenCV, Dialogflow, Flask for API

NLP Toolkit for the Gujarati Language, Under Development

- This major project aims to implement all the necessary text processing algorithms like Tokenizer, Stemmer, Lemmatizer, Tagger and many more for the Gujarati Language
- This NLP Toolkit also aims to implement data visualization features for analysis using the Matplotlib Python Library
- The developmental code of the project can be found at **https://www.github.com/Rutvik-Trivedi/Gujarati-NLP-Toolkit**
- The toolkit is being planned to be merged with CLTK, the biggest

toolkit for Classical Languages

Audio Controlled Centralised Operating System, Under Development

- This project aims to create an audio controlled fully automated Operating System (Linux based) which can be accessed by the user remotely from all the personal devices
- Technologies to be used: Docker, Python for API construction, Python for Machine Learning models and Speech input/output scripts, Bash for OS control

PROJECTS AND HIGHLIGHTS (COMPLETED)

Online A.I. based Chat Support System, Gyanith 2019

- Implemented using the **Dialogflow NLU** and **API construction in PHP**
- The chatbot was **successfully used by 1000+ participants** from different colleges for Gyanith, which is the annual technical symposium of NIT Puducherry
- Moreover, presently it is also updated to be able to answer queries by searching the web, queries related to date and time, translates a phrase from English to different languages, simple mathematical calculations as well as current weather conditions of a location, based on the city name. The related API construction was done in Python
- It can be found for review and testing at: **https://Rutvik-Trivedi.github.io/chatbot/tarjani**

Self Driving Car, as a part of the Artificial Intelligence Workshop - Gyanith'17

- A self-implemented software-based prototype of a self-driving car implemented in Python
- The technology used: **Pytorch**
- The technology used for plotting and visualisation: **Seaborn Library**
- The code can be found at the Github profile: **https://github.com/Rutvik-Trivedi**

Miscellaneous Projects, Course Projects and self-development projects, Mini and Micro Projects

- Other miscellaneous projects include:
    1. Self-implemented **chatbot using Pytorch**
    2. Self-implemented Python library for **Feedforward Neural Networks** and **Linear Regression**
    3. A **C-program as a prototype of a question forum** where user can

create an account using user ID and password and login to ask the questions. The administrator can view all the questions and answer unanswered questions

4. A **Rule-Based search engine in Python** which searches the user query from a database and returns the answers as well as other related information

- Codes to all these projects are available at the Github Profile: **www.github.com/Rutvik-Trivedi**

MANAGEMENT, LEADERSHIP AND VOLUNTEERING

Student Volunteer, GIANTS International - India, Social Services

- Participated in various social events organised by GIANTS Foundation like blood donation camps, health camps, cleanliness initiatives, etc as a volunteer
- Also participated in school level events for social causes as a volunteer organised by GIANTS

Event Co-ordinator, Le'Ciel 2018, NIT Puducherry

- Event coordinator of the group art event at the annual cultural festival at NIT Puducherry
- Successfully managed the event with 20+ participants

Teaching Assistant, IoT and Home Automation Workshop, Gyanith 2019

- Training assistant at the IoT Workshop
- Contributed to teaching above 80 participants of the workshop

Core Teaching Member, NIT Puducherry Teaching Community

- NIT Puducherry Teaching Community is an unofficial community by the students of NITPy which aims to teach various tools, technologies and topics related to Computer Science to the interested students

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COURSES

- **Machine Learning**, Coursera, Certified
- **Neural Networks in Deep Learning**, Coursera, Certified
- **Artificial Intelligence**, Udacity, Uncertified
- **Introduction to Tensorflow**, Udacity, Uncertified

EXTRA-CURRICULAR ACTIVITIES

- Completed '***Upantya-Visharad***' in **Vocal** as well as **Instrumental** in Hindustani Classical Music under ***Brihad Gujarat Sangeet Samiti***
- Secured **first position** in a Duet song competition, **Gyanith'18**
- Secured **Third position** in **district level** song competition organised by Excel Agrochemicals, Gujarat

LANGUAGES

- English - Proficient; Verbal, Written
- Gujarati - Proficient; Verbal, Written
- Hindi - Proficient; Verbal, Written