

Adithya Narayan

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EDUCATION

- **Ramaiah Institute of Technology**

Bachelor of Engineering in Information Science;

Bangalore, India

Aug. 2016 – Present

EXPERIENCE

- **Vahan Inc**

Software Engineering and Data Analysis Intern

Bangalore, KA

January 2019 - Present

- **Regex framework for Response Validation and Query Specific Keyword Extraction:** Built a library of regexes one could use to validate responses to questions asked by the Company Chatbot. These Regexes could also extract specific information from the response if present. Increased Recall from 85 percent to 95 percent.
- **Data Collection Pipelines using Hadoop and Selenium:** Designed an algorithm to exhaustively generate pdf names, that would then be used by Curl to download the same from a remote server onto a local system. Used Selenium to automate browser interactions, and analyzed codes that would uniquely identify each pdf. Used Hadoop Stream and Tesseract to parse region specific textual data from each pdf into a Pandas dataframe.

- **Stride.AI**

Software Engineering and Research Intern

Bangalore, KA

June 2019 - August 2019

- **ETL Pipelines for Text Mining:** Built an ETL pipeline that extracted text and coordinate data from Unstructured legal documents/PDF's and loaded the same onto CSV files. Used NLTK and Regex for preprocessing obtained datasets. Used the same dataset to classify passages of text into one of 8 different topics using sklearn and low resource data mitigation techniques.
- **Backend API development for Image Annotation and Labelling:** Reduced Data annotation time from 4 hours to 2 minutes by building an inhouse XML parser that transformed previously incompatible annotations in the form of XML log files, to program specific, compatible annotations packaged in JSON. Used ElementTree to traverse and parse XML files and JSON to store the results of the same in a compatible format
- **Hand Written Text Detection and Localisation:** Trained and Deployed handwritten text localisation and classification models on French KYC documents using Tensorflow and Protobuf. Performed A/B testing to rank model architectures and end to end pipelines based on memory requirements, processing speeds and Testing accuracy.

- **Edhitha Unmanned Aerial Systems**

Systems and Computer Vision Developer

Bangalore, KA

September 2018 to August 2019

- **Autonomous Target Detection and Classification:** Used the OpenCV library to build autonomous region proposal and classification pipelines. Used Contour and Background Filtering algorithms like MSER and Canny edge detection to obtain a series of valid Regions of Interest(ROI). Built Shape recognition models to classify regions of interest into one of 7 different geometric shapes. Obtained a validation accuracy of 91 percent using Shape specific, Orientation independent geometric features.
- **Wireless Data Migration:** Built Shell scripts to migrate image and telemetry data from a remotely connected Odroid C2 to a Linux OS using SSH and RSync
- **Client Side Data Transfer and API development:** Built an API one could use to send collected sensory/imagery/geospatial data to a remote server using requests and Curl.

- **Ramaiah Institute of Technology**

Research Assistant

Bangalore, KA

Jan 2019 - Present

- **Feature Analysis and Visualization tool for Audio:** Used PyQt for Developing a Desktop App, to mine Audio features like Mel Frequency Cepstral Coefficients(MFCC) and Zero Crossing Rates from selected time segments in Audio files using Librosa and Visualized the same using Pandas.
- **Crowdsourced Data Collection and Annotation tool for Multimedia:** Using React.js to build a webapp to collect Audio, Video, Text and Annotations provided by the public and store the same in Google Cloud.