

# Mahesh Medam

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## Skills

<b>Languages</b>	C, C++, Java, Python
<b>Web Skills</b>	Flask, SQLAlchemy, Selenium, jQuery, Puppeteer, Bootstrap, SQL, JWT, PHP, ReactJS
<b>AI Skills</b>	Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, NLTK, spacy, Tensorflow, Pytorch, fastai, rasa.ai
<b>Extra Curricular</b>	National Service Scheme, Table Tennis, Inter-Hall Open-Soft Team, Entrepreneurship, InterviewBit Campus Ambassador

## Education

### IB Academy | InterviewBit

April 2018 - April 2019

- Course Work: Algorithms and Data Structures, System Design, Operating Systems, ReactJS, Flask, Git and Github

### Aerospace Engineering | Indian Institute of Technology, Kharagpur

June 2015 - May 2020

- Course Work: Programming and Data Structures, MATLAB, Finite Element Methods
- Additional: Deep Learning Foundations and Applications, Theory of Operating Systems, Educational Data Analytics

## Experience

### Machine Learning Intern | Instoried Research Labs Pvt. Ltd.

May 2019 - July 2019

- Implemented **ULMFiT** on a custom dataset achieving **42.3 perplexity** in language modelling and **93.3% accuracy** in sentiment analysis
- Conceptualized and devised a novel pipeline for creation of embeddings from any labelled text dataset and implemented it for emotions
- Created a simple rule-based engine for emotional classification utilizing emotional embeddings to achieve an accuracy of **75.7%**
- Devised a custom method to improve variety and relevance of recommendations for alternative words in context and word level

### Data Science Intern | Pyramid Softsol Pvt. Ltd.

May 2018 - July 2018

- Worked with team in an agile environment on design, development of real-time video analytic solution for tracking patient's medicine usage
- Applied Transfer Learning on ImageNet pre-trained SSD model built on Inception network and **mAP@0.5IoU of 90.7%** was achieved
- Developed a Healthcare AI virtual assistant which can book appointments, take blood pressure and diabetic readings leveraging RASA.ai
- Solely designed the conversation flow diagram and added custom Actions by accessing database to generate personalized responses

## Projects

### ReviewIt | A review system and analysis dashboard

- Designed a system to incorporate Review section on any website instantly by embedding a two-liner in the source code
- Designed a dashboard with full-fledged multi-level authentication system using Flask\_Login and Shards UI for frontend
- Built a **ReSTful API** containing endpoints for addition of new reviews and **Infinite scroll** retrieval of reviews on website
- Dynamically generated infographics based on results of sentiment analysis, topic modelling on reviews leveraging Chart.js

### DocReferral | A platform for dentists to refer other dentists

- Designed an interactive chat UI using jQuery convForm for referrer to enter patient details, choose teeth and upload files
- Built a dashboard for referrals sent to / received from other dentists and also detailed referral form pages using Bootstrap

## Entrepreneurship

### Revoira - A Review Platform Provider | Co-Founder

Dec 2017 - Feb 2019

- Deployed a Chrome Extension for review analysis on ecommerce websites to gain validation of idea and collect user feedback
- Co-ordinated with a team of 4 in designing and development of user-interfaces and backend for landing page and user dashboard
- Conducted research on market, clients and competitors to better design our product features, user-system interactions and pricing
- Qualified in **top 16** (13000+ ideas) in Accenture Innovation Challenge'18; emerged as **2nd runner up** in Srijan'19, B-Model Competition

## Competitions

### Accenture Innovation Challenge 2018 [Finalist]

Dec 2018 - Jan 2018

- Developed a chrome extension that analyzes upto 20 pages of customer reviews of smartphones on Flipkart and Amazon websites
- Designed API endpoints for rendering scores and authorisation and deployed with **JSON Web Token** token-based authentication
- Implemented an automated pipeline for reviews scraping utilizing Puppeteer; then generate factor-wise scores from pickled Naive Bayes

### Code.fun.do SHOWCASE 2017, Microsoft [Finalist]

Nov 2016 - Jan 2017

- Developed a **Messenger chatbot** to help commuters get information regarding trains like live status, confirmation status and route
- Consumed LUIS.ai api for Named Entity Recognition and Intent Classification and scraped railwayapi.com for railway information

## Position of Responsibility

### Student Advisor | Entrepreneurship Cell IIT Kharagpur

Feb 2016 - Present

- Supervised a team of 7 members for the development of year-long event websites and admin panels
- Spearheaded the project of building Startin'17, a KGPIan student internship portal for Kharagpur student community
- Introduced Referral Code System and dynamic participation fee for Campus Ambassadors; impacted the increase in footfall by 67%