

# Venkata Bhanu Teja Pallakonda

MASTER'S COMPUTER SCIENCE · DEEP LEARNING

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## Education

### Texas A&M University

MASTER OF SCIENCE, COMPUTER SCIENCE

College Station, TX

Aug. 2021 - Present

### Indian Institute of Technology(IIT)

BACHELOR OF TECHNOLOGY, ELECTRICAL ENGINEERING - CGPA: 8.68/10

Tirupati, India

Aug. 2015 - May. 2019

## Skills

**Programming** Python, JS, Mysql, MongoDB, LaTeX  
**Deep Learning** Neural networks, CNN, LSTM & RNN, Transformers  
**Frameworks** Tensorflow, Pytorch, Rasa, DialogFlow, FastAPI, Flask, ReactJS, Docker

## Work Experience

### Legato Health Technologies (Anthem Inc.)

ASSOCIATE ML/AI RESEARCH AND DEVELOPMENT

Hyderabad, India

Oct. 2020 - Jul. 2021

- Implemented minutes of meeting generation from video recordings of a meeting
- Built and deployed overall service infrastructure utilizing Docker container and flask on AWS EC2 instance
- Developed the pipeline using pre-trained models like jasper, GPT2 and used BERT language models on custom made data-sets for intent classification to finally generate minutes of meeting.

### Fincare Small Finance Bank

MACHINE LEARNING ENGINEER

Bangalore, India

Jun. 2019 - Oct. 2020

- Developed Whatsapp banking chat-bot using hugging-face transformer models for intent classification and entities extraction for all the banking related queries.
- Designed model for Indian ID card detection, field extractor and masker for fields like Name, address, contact number and other relevant information and built RESTful APIs using FASTapi and python.

## Projects

### Undergraduate Research, Semantic Segmentation

B.TECH THESIS, MENTOR : DR. RAMA KRISHNA GORTHU

Tirupati, India

Sep. 2018 - Jun. 2019

- Applied seg-net, refine-net architecture on aerial images to segment out images into classes of buildings, roads and neither of buildings or roads
- Trained models on mitade20k data-set and fine-tuned models by class imbalance methods and Yolo-object detection method to remove false-positive intersections, which is very useful in autonomous driving, automated parking allotment system.
- Designed pipeline using Yolo algorithm to detect the boxed objects first and later on got class imbalance quotient's from the training data-sets and used those on the box by box segmented results to reduce false-positive intersections on the overall image. <https://bit.ly/bhanu-thesis>

### Dense-Crowd Counting in an image - Crowd-Net

INSTRUCTOR: DR. RAMA KRISHNA GORTHU, DR. SUBRAHMANYAM GORTHU

Tirupati, India

Sep. 2017 - Dec. 2017

- Implemented architecture that counts the total crowd in the dense crowd images using deep and shallow convolutional neural networks.
- Deep CNN helped to count near the part of the image where the density of the crowd is very high and shallow CNN helped in detecting the persons who are completely visible (where the complete body was visible).
- This method could detect up to 80% accuracy where the actual count in the image is approximately as high as 4000

## Mailhunt

Hyderabad, India

HTTPS://MAILHUNT.IO

Jul. 2021 - Aug. 2021

- Developed Full stack application to check if email address exists and also to check if an email is actually deliverable to the given email in real time.
- Restful APIs are developed using FASTapi and other python libraries and Frontend is developed using React JS and integrated with stripe
- Deployed overall service infrastructure utilizing Docker container, VercelCI, and several AWS stack(Including EC2, ECS, S3, CloudFront, RDS, IAM), focusing on high-availability, and auto-scaling.

## Self Learning Chatbot

Hyderabad, India

FREELANCING

May. 2021 - Aug. 2021

- Developed a generic chatbot app system which automatically creates question answer pairs from a document or URL and responds to user queries based on the context in the URL/Document.
- Pretrained hugging face transformer models are used for question and answer pair generation.
- Rasa chatbot framework is used to build the end to end chatbot model using above generated QA pairs.

## Relevant Specialization

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Deep Learning, Pattern Recognition and Machine Learning, Analog Circuits, Deep Learning for Computer Vision, Complex Variables, Artificial Intelligence, Calculus, Image and Video Processing, Linear Algebra, Digital Systems, Optimization Techniques

## Achievements and Leadership

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- \$20,000 Worth Merit based complete fee waiver from 8th to 12th grade.
- Shortlisted for international and national level examinations: Junior Science Olympiad, Junior Astronomy Olympiad, National Talent Search Examination, Kishore Vaigyanik Protsahan Yojana.
- Electrical Engineering Placements & Internships coordinator at IIT Tirupati.
- Lead and only developer of personal project mailhunt and whatsapp banking chatbot at Fincare.
- Represented IIT Tirupati's Cricket team as Vice-Captain in Inter IIT Sports Meet 2017

## Publications & Certifications

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### Deep Learning Specialization - Coursera

Tirupati, India

INSTRUCTOR: ANDREW NG

Aug. 2020

- The Deep Learning Specialization was created and is taught by Dr. Andrew Ng, a global leader in AI. This specialization covered DL topics like Neural Networks and Deep Learning, Improving Deep Neural Networks, Structuring Machine Learning Projects, CNNs and Sequence Models. <https://bit.ly/bhanu-DL>

### Building and Visualizing Machine Language Translation

Hyderabad, India

TOWARDSAI - MEDIUM

Sep. 2017 - Dec. 2017

- Wrote an article on Building and visualizing Machine Language Translation using attention models on medium and published with TowardsAI. <https://bit.ly/v-mlt-bhanu>

## Work Authorization

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- Eligible to work in US for 36 months under Optional Practical Training (OPT).