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EDUCATION

Master of Science in Computer Science, *Texas A&M University, College Station - GPA: 4/4*	Aug 2021 - Present
Bachelor of Technology in Electrical Engineering, *Indian Institute of Technology (IIT) Tirupati - GPA: 8.68/10*	Aug 2015 - May 2019

SKILLS & RELEVANT SPECIALIZATION

Programming	Python [Pytorch, TensorFlow, OpenCV, Sklearn, Rasa, FastAPI], Javascript, Reactjs, SQL, Docker.
Specializations	Deep Learning, Pattern Recognition and Machine Learning, Analog Circuits, Computer Vision, Complex Variables, Artificial Intelligence, Calculus, Image and Video Processing, Linear Algebra, Digital Systems, Optimization Techniques

WORK EXPERIENCE

Machine Learning Internship   May 2022 - Aug 2022
Productiv   *Seattle, Washington*

- Built a pipeline to automatically parse key fields from customer contracts. The pipeline had **(a)** A document type classifier to filter to relevant documents **(b)** A finetuned LayourLMv3 model on business relevant data **(c)** A Labelstudio based annotation pipeline for training data and measuring success

Research Assistant (NSF Funded), Teaching Assistant   Jan. 2022 - Present
Texas A&M University   *College Station, Texas*

- Predicting pancreatic cancer using protein values by reducing the features and improving recall using ML techniques.
- Working as Teaching assistant for CSCE431 (SWE) class to assist professor and teach student SWE industry practices during lab.

Machine Learning Engineer   Oct. 2020 - Jul. 2021
Legato Health Technologies (Anthem Inc.)   *Hyderabad, India*

- Built a tool to generate meeting minutes from video recordings of a meeting. Developed the pipeline using pre-trained models—jasper, GPT-2, and BERT—on custom datasets.

Machine Learning Engineer   Jun. 2019 - Oct. 2020
Fincare Small Finance Bank   *Banglore, India*

- Developed a Whatsapp banking chat-bot using Hugging Face transformer models for intent classification and entity extraction.
- Created models for ID card detection, field extraction, and and field masking (for privacy).

PROJECTS

Any to Any voice conversion using transformers Link to presentation   Feb. 2022 - Present
Texas A&M University   *College Station, Texas*

- Separated linguistic features and voice identity of an utterance and used these two features independently to achieve any combination on conversion. BNF and Speaker embeddings are inputs and mel-spectrogram is predicted.
- Trained on transformer with CNN pre-nets and post-nets. Speech quality synthesized is very clear with good voice conversion.

repaper - Python package Link to Github   Oct. 2022 - Nov. 2022
Open-source contribution

- A python package to create an editable PDF form or online forms from a sample form image. Used **LayoutLM** model trained on a Question-Answer dataset to identify key-value pairs and **easy-ocr** to extract the bounding boxes and text information.

MixRnet Link to arXiv   Sep. 2021 - Nov. 2021
Texas A&M University   *College Station, Texas*

- Mixup data augmentation technique as regularization and improving the ResNet50 architecture accuracy on image classification.
- Achieved an error of **4.87%** on CIFAR-10 data-set (Top 105 on CIFAR-10 bench-marking). **Link to Github**

Image colorization (Grayscale to RGB) Link to Github   Jan 2022 — Feb 2022
Open-source contribution   *College Station, Texas*

- Image is converted to lab space(2 channel) to reduce the regression by a channel. Model is trained on UNET architecture.
- Tried with various loss functions (MSE, SSIM, TVLOSS, Pretrained VGG feature loss). Weighted loss gave better performance.

Undergraduate Research Thesis, Semantic Segmentation Link to thesis   Sep. 2018 - Jun. 2019
IIT Tirupati   *Tirupati, India*

- Trained models on mitade20k dataset and finetuned 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.

Eligible towork in the US for - 36 months Optional Practical Training and 12 months under Curricular Practical Training.