Ramaneswaran S

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EDUCATION

Vellore Institute Of Technology University　　　　　　　　　　　　　　　　**2018 – 2022**
Bachelor of Technology in Information Technology - GPA 9.08/10　　　　　　　*Vellore, Tamil Nadu*

Don Bosco School　　　　　　　　　　　　　　　　　　　　　　　　　　**2005 – 2018**
CBSE XII (2018) 95.8% — CBSE X (2016) - 10 CGPA　　　　　　　　　　　　*New Delhi, Delhi*

PROFESSIONAL EXPERIENCE

NVIDIA　　　　　　　　　　　　　　　　　　　　　　　　　**Bangalore, Karnataka**
Data Scientist - Applied Deep Learning　　　　　　　　　　　　　　　　　*Jul 2022 – Present*
- Worked with a wide range of customers from various segments, helping them architect and deploy large scale ML solutions in the areas of NLP and Speech processing.
- Led the development of SOTA code-mixed translation models and contributed to code-mixed ASR models for Indian languages.
- Currently working in the LLM Research team on improving a LLM's reasoning capabilities on math and structured data.

RESEARCH EXPERIENCE

Laboratory of Computational Social Science, IIIT Delhi　　　　　　　　　**New Delhi, Delhi**
Research Intern　　　　　　　　　　　　　　　　　　　　　　　　　　*Jan 2021 – Present*
- Working under the supervision of Prof. Tanmoy Chakraborty and Prof. Shad Akthar in the areas of multimodality and conversational dialogs. Research published at **ACL, EMNLP**

TCS Research & Innovation Lab　　　　　　　　　　　　　　　　　　**Pune, Maharashtra**
Research Intern　　　　　　　　　　　　　　　　　　　　　　　　　*Jan 2022 – Jun 2022*
- Working under the supervision of Dr. Vikram Jamwal in the area of controllable image generation. Research published at **WACV**

GAMMA Labs, University of Maryland　　　　　　　　　**College Park, Maryland - Remote**
Research Collaborator　　　　　　　　　　　　　　　　　　　　　　　*Jan 2023 – Present*
- Working under the supervision of Prof. Dinesh Manocha in the areas of low resource learning and domain adaptation. Research published at **ACL, EMNLP, Interspeech**

INTERNSHIP EXPERIENCE

Flipkart　　　　　　　　　　　　　　　　　　　　　　　　　**Bengaluru, Karnataka**
SDE Intern　　　　　　　　　　　　　　　　　　　　　　　　　*May 2021 – July 2021*
- Developed microservices in Spring Boot for a funnel view dashboard aimed at enhancing warehouse activity diagnostics.
- This innovation led to a significant reduction in on-call diagnosis time, decreasing from 10 minutes to under 1 minute.

Samsung Research　　　　　　　　　　　　　　　　　　　　　**Bangalore, Karnataka**
Machine Learning Intern　　　　　　　　　　　　　　　　　　　　　*Dec 2020 – Feb 2021*
- Developed a generalizable deep learning pipeline with BERT and T5 models for dialogue state tracking
- This approach achieved a notable intent accuracy of 93% and a slot accuracy of 82%

Omdena　　　　　　　　　　　　　　　　　　　　　**Palo Alto, California - Remote**
Machine Learning Engineer　　　　　　　　　　　　　　　　　　　　*Aug 2020 – Oct 2020*
- Collaborated with a global team of 50 engineers on a project for Save The Children
- Developed a novel risk predictor for online conversations using LSTM models

SeaPort AI　　　　　　　　　　　　　　　　　　　　　　　　　**Chennai, Tamil Nadu**
Machine Learning Intern　　　　　　　　　　　　　　　　　　　　　*May 2019 – June 2019*
- Developed a customizable OCR pipeline using PyTorch
- Developed FastAPI based MLOps backend to deploy OCR framework

PUBLICATIONS

- [MEMEX: Detecting Explanatory Evidence for Memes via Knowledge-Enriched Contextualization](#)
  Shivam Sharma, Ramaneswaran S, Udit Arora, Md. Shad Akhtar, Tanmoy Chakraborty
  ACL 2023

- [From Multilingual Complexity to Emotional Clarity: Leveraging Commonsense to Unveil Emotions in Code-Mixed Dialogues](#)
  Shivani Kumar, Ramaneswaran S, Md. Shad Akhtar, Tanmoy Chakraborty
  EMNLP 2023

- [MMER: Multimodal Multi-task Learning for Speech Emotion Recognition](#)
  Sreyan Ghosh, Utkarsh Tyagi, Ramaneswaran S, Harshvardhan Srivastava, Dinesh Manocha
  InterSpeech 2023

- [Composite Diffusion: whole $\geq \sum$ parts](#)
  Vikram Jamwal, Ramaneswaran S
  WACV 2024

- [DALE: Generative Data Augmentation for Low-Resource Legal NLP](#)
  Sreyan Ghosh, Chandra Kiran Evuru, Sonal Kumar, Ramaneswaran S, Utkarsh Tyagi, Dinesh Manocha
  EMNLP 2023

- [ACLM: A Selective-Denoising based Generative Data Augmentation Approach for Low-Resource Complex NER](#)
  Sreyan Ghosh, Utkarsh Tyagi, Manan Suri, Sonal Kumar, Ramaneswaran S, Dinesh Manocha
  ACL 2023

- [Span Extraction Aided Improved Code-mixed Sentiment Classification](#)
  Ramaneswaran S, Sean Benhur, Sreyan Ghosh
  WNUT @ COLING 2022

- [TamilATIS: dataset for task-oriented dialog in Tamil](#)
  Ramaneswaran S, Sanchit Vijay, Kathiravan Srinivasan
  DravidanLangTech @ ACL 2022

TECHNICAL SKILLS

Languages: (Highly Proficient) Python, C++ (Moderate) JavaScript, Java, SQL
Libraries & Frameworks: Pytorch, FastAPI, Huggingface - transformers
Certifications and Training:

- Coursera - Deep Learning Specialization
- Coursera - Machine Learning
- Data Science Methodology
- Time Series Forecasting

PROJECTS

- **Argos** – Highly optimized (< 100ms latency) ML-powered Telegram bot to prevent notification pollution.

- **Quicktext** – An extremely quick (< 7 LOC) library to train text classification models; built on top of sPacy

- **Picturate** – A foundry offering modular and extensible components for building GAN based text-to-image models.

- **Perception** – A comprehensive reference implementation for large-scale unsupervised image search.

ACHIEVEMENTS

- **Winner** of VIT Hack - Open Innovation Track

- **Winner** of VIT Hack - AWS Educate Track

- **Winner** of Sharechat IndoML Datathon - Multilingual Absusive Comment Identification

- **Ranked 19/1000** In Cascade Cup Data Analytics Competition

COMMUNITY SERVICE

- **Reviewer for:** EMNLP'23, DravidianLangTech @ ACL'23

- Technical Member of Google Developers Group, VIT. Worked on several open-source projects and presented lectures on machine learning [1]