Ramaneswaran S

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EDUCATION

Vellore Institute Of Technology University

2018 - 2022

Bachelor of Technology in Information Technology - GPA 9.04/10

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

Jun 2022 - Present

- Worked with a wide range of customers, helping them architect and deploy large scale ML solutions in the areas of language and speech processing.
- Worked with KT to build Korean foundational language models. [Blog Post]
- Led the development of SOTA code-mixed translation models and contributed to SOTA code-mixed ASR models for Indian languages.
- Currently working in the LLM Research team on improving LLM reasoning capabilities on math and structured data.

RESEARCH EXPERIENCE

Laboratory of Computational Social Science

New Delhi, Delhi

Research Intern

Jan 2021 - Present

• Working under the supervision of Prof. Tanmoy Chakraborty and Prof. Md Shad Akhtar in the areas of multimodality and conversational dialogs. Research published at ACL, EMNLP.

TCS Research & Innovation Lab

Pune, Maharashtra

Research Intern

Dec 2021 - May 2022

• Completed B.Tech thesis under the supervision of Dr. Vikram Jamwal in the area of controllable image generation. Research published at WACV and planned implementation at Munch Museum, Norway. [Press Release]

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

Omdena

Jun 2021 - July 2021

- Developed microservices in Spring Boot for a funnel view dashboard aimed at enhancing warehouse activity diagnostics.
- This dashboard led to a significant reduction in on-call diagnosis time, decreasing from 10 minutes to under 1 minute.

Samsung Research

Bangalore, Karnataka Oct 2020 - Mar 2021

Machine Learning Intern

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%.

Machine Learning Engineer

Palo Alto, California - Remote

• 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. [Blog Post]

SeaPort AI Chennai, Tamil Nadu

Machine Learning Intern

May 2019 - June 2019

Aug 2020 - Oct 2020

• 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, <u>Ramaneswaran S</u>, 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, <u>Ramaneswaran S</u>, Md. Shad Akhtar, Tanmoy Chakraborty **EMNLP 2023**

- MMER: Multimodal Multi-task Learning for Speech Emotion Recognition
 Sreyan Ghosh, Utkarsh Tyagi, <u>Ramaneswaran S</u>, Harshvardhan Srivastava, Dinesh Manocha Interspeech 2023
- Composite Diffusion: whole ≥ ∑ parts Vikram Jamwal, <u>Ramaneswaran S</u>
 WACV 2024
- DALE: Generative Data Augmentation for Low-Resource Legal NLP Sreyan Ghosh, Chandra Kiran Evuru, Sonal Kumar, <u>Ramaneswaran S</u>, 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, <u>Ramaneswaran S</u>, Dinesh Manocha ACL 2023
- Span Extraction Aided Improved Code-mixed Sentiment Classification <u>Ramaneswaran S</u>, Sean Benhur, Sreyan Ghosh WNUT @ COLING 2022
- TamilATIS: dataset for task-oriented dialog in Tamil <u>Ramaneswaran S</u>, Sanchit Vijay, Kathiravan Srinivasan <u>DravidanLangTech @ ACL 2022</u>

TECHNICAL SKILLS

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

• Coursera - Deep Learning Specialization

• Data Science Methodology

• Coursera - Machine Learning

• 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 2023, DravidianLangTech @ ACL 2023
- Technical Member of Google Developers Group, VIT. Worked on several open-source projects and presented lectures on machine learning. [Lecture]