RAHUL TANGSALI

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EDUCATION

University of Southern California   Los Angeles, CA
Masters in Computer Science (CGPA: 3.85/4)   August 2023-May 2025
- Relevant Courses: Analysis of Algorithms, Database Systems, Web Technologies, Machine Learning for Data Science

Pune Institute of Computer Technology   Pune, India
Bachelors in Computer Engineering (CGPA: 3.73/4)   August 2019-August 2023
- Relevant Courses: Data Structures and Algorithms, Object Oriented Programming, Discrete Mathematics, Data Science and Big Data Analytics, Artificial Intelligence, Machine Learning, Natural Language Processing

SKILLS

- Programming: Python, C++, SQL, React.js, Linux
- ML Frameworks: Tensorflow, Keras, PyTorch, Fairseq, Azure, AssemblyAI
- ML Domains: Natural Language Processing, Computer Vision, Supervised ML, Data Science
- Others: IPythonNotebook, Git

WORK EXPERIENCE

L3Cube Pune   Pune, India
Project Intern   June 2022-June 2023
- Led creation of Marathi's largest sentiment analysis dataset, L3Cube-MahaSentMD., consisting of more than 20000 training examples. Research published at 2023 International Conference on Machine Learning (ICML)
- Innovated data augmentation methods for model accuracy increasing by 1%. Pioneered named entity masking with BERT, back-translation and GPT-based sentence/sentiment prediction for data augmentation
- Led English, Hindi, and Gujarati news summarization: Utilized PEGASUS, BRIO, IndicBART. Achieved top 3 ranks in ILSUM 2022 at FIRE 2022, Kolkata, for all 3 languages

Pune Institute of Computer Technology   Pune, India
Undergraduate Research Assistant   October 2021-May 2023
- Secured 1st place at DravidianLangTech, ACL 2022, for Neural Machine Translation research in Dravidian languages
- Authored research in abstractive document summarization for medical literature at COLING 2022's Workshop on Scholarly Document Processing, achieving an accuracy of 92% using T5-large
- Developed unsupervised methods for neural machine translation in German and Sorbian languages achieving a BLEU score of 37; presented at EMNLP 2022's WMT Workshop
- Attained cutting-edge results in image captioning for four Indian subcontinent based languages at CGIP 2023 with attention-based merge models

ACADEMIC PROJECTS   Add 2 more projects

Real-Time Staff Productivity Monitoring System
- Built a staff productivity analysis system to estimate efficiency of unloading and offloading from trucks docks via real-time video feed, and supplemented by data analysis powered using BI tools, accomplishing an accuracy of 97%.

Spoken QnA Evaluation System
- Envisaged a Spoken QnA evaluation system utilizing Azure AI's conversationalunderstanding models and AssemblyAI's English audio transcription to assess candidates' responses, with scoring accuracy of 98.85%
- Python scripts and individual intent-based models ensured accurate scoring for diverse questions

EXTRA-CURRICULARS

PICT ACM Student Chapter (PASC)   Pune, India
Volunteer and Technical Contributor   January 2020-April 2023
- Managed organization of ML events as part of PASC's annual event, drawing 500+ students from colleges across Pune
- Recognized with an award for outstanding research enthusiasm in 2022
- Architected an NLP-based voice assistance pipeline in the club website to enhance user productivity; was selected as the second best ACM chapter website by ACM India