

# Rithik Mali

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HACKERRANK | LINKEDIN | GITHUB

## EDUCATION

### PES UNIVERSITY

BACHELORS COMPUTER SCIENCE AND ENGINEERING

GPA: 7.9

August 2018 - July 2022

Bangalore, India

## EXPERIENCE

### ARTPARK | RESEARCH INTERN

Bangalore, India | May 2021 – Jul 2021

- Decreasing the workload of technicians by automating the pre-processing pipeline of classifying WhatsApp X-ray images (XraySETU)
- Identify whether images received from users contain an Xray i.e. classify images with an X-ray from the ones without an X-rays. Used SIMCLRv2 for this and it outperformed AWS Rekognition.
- Classify Xrays as "good/usable" and "bad/unusable".
- Also worked on using Model Predictive Control for trajectory tracking.

### CLOUD COMPUTING AND BIG DATA, PES UNIVERSITY | RESEARCH INTERN Bangalore, India | Jun 2020 – Aug 2020

- Trained and compared Transformer models with different pre-processing techniques and language pairs on the quality of machine translations.
- Discovered that morphologically splitting the source language and adding Parts Of Speech(POS) tags to it improves the Machine Translation of low resource, morphologically rich languages by up to 133%.

### PESU I/O | BRANDING EXECUTIVE - VIDEO EDITOR

Bangalore, India | Oct 2019 – Mar 2020

- Worked with a team which is dedicated to production and creation of deliverable videos for peer-to-peer education.

## SKILLS

PROGRAMMING LANGUAGES	Python 3, C, C++
LIBRARIES/Frameworks	Tensorflow, Pandas
TOOLS / PLATFORMS	Docker, AWS

## PROJECTS / OPEN-SOURCE

### C LIBRARY FOR INTAL CALCULATIONS | [LINK](#)

C

Development of a C library to do mathematical operations like multiplication, division, GCD, n-th fibonacci etc. on integers of arbitrary lengths.

### GREENEST PARTS OF BANGLORE | [LINK](#)

Python, OpenCV, Hadoop Map-Reduce

A Hadoop map-reduce program that takes the result produced by OpenCV python code and uses Map-Reduce to calculate the parts which are above a specific percentage of Green.

### ITERATOR FOR FIBONACCI HEAPS | [LINK](#)

C++

Implemented an Iterator for Fibonacci Heaps so that it can be used with most STL algorithms.

## HONORS & AWARDS

- Published a research paper titled "Improving Transformer based Neural Machine Translation with Source-side Morpho-linguistic Features" at an IEEE conference