# Ritvik G

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## **EDUCATION**

# National Institute of Technology

Bachelor of Technology in Computer Science

## Sri Kumaran Children's Home

Senior Secondary in Computer Science

Andhra Pradesh, IN

June 2020 to May 2024

Bangalore, IN

June 2018 to May 2020

#### EXPERIENCE

# Research Specialist I

January 2022 to Present

AI Institute - University of South Carolina

Columbia, SC

- Working on Alleviate 2.0: Demonstrating Artificial Intelligence Enabled Virtual Assistance for Telehealth
- Developing interface for GEAR-Up: Generative AI and External Knowledge-based Retrieval Upgrading Scholarly Article Searches for Systematic Reviews

#### Research Affiliate

September 2022 to December 2023

AI Institute - University of South Carolina

Columbia, SC

- Published a paper FACTIFY3M: A Benchmark for Multimodal Fact Verification with Explainability through 5W Question-Answering at EMNLP 2023
- Extracted fact checking information from 5 datasets [Fever, Snopes, Politifact, HoVer, FaVIQ]
- Aided in writing sections of the paper

# Project Intern

July 2022 to March 2023

Indian Institute of Science

Bangalore, IN

- Developed a website for an AI based postural analysis and sport bio-mechanical analysis using [React + MySQL] stack
- Embedded a Chatbot [Bloom] fine tuned on fitness and nutrition data for Question Answering
- Advanced a Computer Vision model [MoveNet] for enhanced body posture analysis

#### Full Stack Developer

July 2022 to August 2022

Indian Institute of Technology - Madras

Chennai, IN

- Created a full stack website for a project called Kaatru using MERN stack [MongoDB, Express, ReactJS, NodeJS]
- Integrated Real time info from monitoring vehicles and stats on interactive maps for suggestion of best route for travel. [developed APIs]

## Computer Vision Intern

May 2022 to July 2022

Indian Institute of Science Education and Research - Bhopal

Bhopal, IN

- Domain trained 3 CNN models [ResNet50, AlexNet, Pretrained ResNet] over images of smokers and non-smokers for classification on Mendeley's dataset and a custom created dataset. Task included data augmentation, noise reduction, contrast enhancement.
- Created a custom dataset of 400 images by extracting images from different open source documents.

#### Research & Development Intern

November 2021 to December 2021

 $Deep\ Element\ AI$ 

Atlanta, GA

- Search Ranking : Developed PyTorch program using SentenceTransformer for ranking of web pages by the complex keywords
- Information Retrieval: Developed PyTorch program for web scraping and information retrieval from websites using NLTK, BeautifulSoup and spaCy toolkit.s

## Full Stack Development Intern

October 2021 to June 2022

National Institute of Technology - Andhra Pradesh

Tadepalliqudem, IN

• Transformed the university's alumni reach through creation of an interactive portal consisting of alumni search, events, digital IDs, giveback program features using MERN stack

#### Mentor

Tekie

October 2020 to March 2021

• Taught Python programming language to students from grade 6 to 12

Delhi, IN

Cisco Talent Outreach Program

Bangalore, IN

• Led the team for creation of a full stack library management portal and a digital question bank management system using Django Framework and MySQL

## **Publications**

Factify3M: A Benchmark for Multimodal Fact Verification with Explainability through 5W Question-Answering

# CERTIFICATIONS

NPTEL - Applied Accelerated Artificial Intelligence MoE Govt. of India - Overview of Blockchains Nvidia DLI - Deep Learning NPTEL - Natural Language Processing Stanford Online - Machine Learning EICT IIT Roorkee - Python for Machine Learning

Microsoft - MTA Introduction to Python

#### TECHNICAL SKILLS

Languages: Python, Java, Javascript, C, C++

Databases: MySQL, MongoDB, Firebase, PostgresSQL

Domains: Artificial Intelligence, Neuro-Symbolic AI, Full Stack Development, Deep Learning, Computer Vision, NLP

Frameworks: ReactJS, Django, NextJS, Material-UI, Bootstrap Developer Tools: Git, GitHub, Kaggle, Visual Studio Code, PyTorch

## ACHIEVEMENTS — EXTRACURRICULARS

AlmaConnect [Alumni Association of NIT Andhra] founding member & student coordinator - IV year Google Developer Student Clubs Lead for NIT Andhra Pradesh - III year

Teaching Assistant - Operating Systems for 150 Sophomore students during my V semester Outstanding Delegate Award in International Model United Nations 74.0 representing Ethiopia Best Parliamentarian Award in Model Parliament of Sweven, NIT Andhra Pradesh