AAKASH EZHILAN

B. Tech Computer Science and Engineering

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EXPERIENCE

MITACS Research Intern
University of Alberta

📅 May 2021 – Ongoing   📍 Edmonton, Canada

- Developing a responsive web interface for tensorflow model which performs accent rating.
- Designing a Keras Model to perform gender classification on raw noisy audio recorded from news broadcast.
- The web interface developed using Flask, was deployed on the university's server and is used for data collection.
- The internship project work was done under the guidance of Dr. Benjamin Tucker of Linguistic Department.

Deep Learning Research Intern
Yuan Ze University

📅 April 2020 – May 2020   📍 Taoyuan City, Taiwan

- Complete Hyperparameter Tuning and Optimization of various CNNs in MMDetection Framework on Steel Defect Detection Dataset.
- Various networks were tested out such as Faster RCNN, Resnet, Cascaded RCNN etc. and inferences were made to determine the optimal configuration.
- MMDetection framework was used which is an open source object detection toolbox based on PyTorch.

Scilab Toolbox Development Intern
FOSSEE IIT Bombay

📅 April 2020 – June 2020   📍 Mumbai, India

- Worked on implementing Scithon Toolbox to embed Python functions and libraries in Scilab under the guidance of Dr. Subbulakshmi.
- Generated the help files for each function deployed using XML and integrated the same with the toolbox.
- The developed toolbox has been released in Scilab Atoms and a github repository for the same is being maintained.

EDUCATION

B. Tech in Computer Science and Engineering
Vellore Institute of Technology, Chennai

📅 June 2018 – June 2022

CGPA: 9.05

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Higher Secondary Certificate
BVM Global, Coimbatore

📅 May 2016 – May 2018

Percentage: 91.2%

STRENGTHS

- Main Development Languages

Python   C/C++   HTML/CSS
Javascript   PL/SQL   LaTeX

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- Machine Learning Tools

Keras   Tensorflow   PyTorch
Sklearn   Matlab   Scipy

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- Development Frameworks/Tools

Flask   NodeJS   ExrpessJS
Android Studio

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- Subjects of Interest

Artificial Intelligence   NLP
Theory of Computation   CV
Application Development

PROJECTS

Visual Question Generation

VQG using Vision Transformer Architecture

📅 January 2021 – May 2021

- Visual Question Generation model, that uses InceptionV3 for encoding the vector, and a network inspired by ViT for generating question related to the image.
- The model took image as input and generated a question for the same, predicting one word at a time. The model was also deployed as a Flask Web App.

Shakespearean Sonnet Generation Using RNN

Sonnet Generation using CharRNN

📅 May 2020 – August 2020

- Implemented a Recurrent Neural Network Architecture to replicate Shakespearean Sonnets given the initial line using pytorch framework.
- The model was then deployed a full-fledged website made in NodeJS with the model accessible through a Flask API hosted in heroku.

NFC Based Payment Gateway

ID Card based Payment System using NFC

📅 January 2020 – May 2020

- A hardware project made with Arduino Microcontroller and PN532- NFC RFID Module for payment through NFC reader in Identity Card and a mobile application for users to update their balance and to confirm any payment made.

ACHIEVEMENTS

Chairperson

ACM Student Chapter

📅 June 2020 – June 2021   📍 VIT, Chennai

Joint Secretary

Code Y Gen

📅 June 2019 – June 2020   📍 VIT, Chennai

Chapter Contribution

UTM Fortinet Book, Dr. Subbulakshmi

📅 January 2020 – June 2020

CERTIFICATES

Deep Learning Specialization

Deep Learning Ai, Coursera

📅 July 18, 2020

Completed Coursera Deep learning specialization of 5 courses by deeplearning.ai.

Cyber Security Workshop

VIT University, Chennai

📅 March 1, 2020

Attended a two day workshop on cyber security and ethical hacking with hands- on session on metasploit and Kali Linux.

PUBLICATIONS

Sentiment Analysis of COVID-19 Tweets

ICOEI Conference

📅 June 2021

Paper presented and accepted in ICOEI Conference, on comparative study of various ML model on Sentiment Analysis on covid-19 tweets based on performance.

Audio Style Conversion Using Deep Learning

IJASE Journal

📅 June 2021

A paper on GAN-based approach to perform style transfer on audio files using mel-frequency spectograms. The model was used to perform gender transfer on audio files.

LANGUAGES

Tamil ●●●●●
English ●●●●●
Hindi ●●●●○