

GARVIT KOTHARI

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PROFILE

I am a problem solver who likes to dive deep into the root of the problem and find permanent solutions. Strong passion in developing data science applications and software solutions. I have developed software solutions for various projects with applications ranging from data analysis, blockchain solutions. I have completed my master's in artificial intelligence preceded by a bachelor's in software engineering.

EDUCATION

University of Birmingham, UK

September,2021 - September,2022

MSc Artificial Intelligence and Machine Learning

- Modules: Computer Vision and Imaging, Neural Computation, Mathematics of Artificial Intelligence and Machine Learning, Machine Learning and Intelligent Data Analysis, Visualization
- Dissertation title: Medical Image Recognition using Vision Transformers

SRM Institute of Technology, India

June,2017 – June,2021

B.Tech. Software Engineering

- Grade Achieved: 80%
- Modules: Software Engineering Principles, Object oriented Programming, Microprocessor, Networking, Soft Skills
- Project title: 3D - UNET model for MRI scan brain tumour segmentation

SKILLS

Programming Languages: Java, Python, C++, C, MATLAB, Dart

Web Languages: HTML, CSS

Database: MongoDB, MySQL, SQLite, Redis (Caching)

Frameworks: Java Spring, Keras, PyTorch, TensorFlow, Flutter, Flask

Blockchain Technology: Stellar Blockchain

Tools: Git, Nsight Systems, Tensorboard, SceneBuilder, JMeter, Postman, Trello

Operating Systems: Windows, Linux

EXPERIENCE

CRIO.DO

May,2019 – June,2019

Software Intern

- Development of Food Ordering Application based on Microservices architecture
- Completed with RESTful APIs using Java Spring and MongoDB
- Optimized system performance by using caching service Redis to speed up database lookups.
- The System had been stressed tested to ensure robust and reliable performance.

Indeed Systems

June,2018 – July,2018

Software Trainee

- Development of Hand drawn shapes recognition application for use by children.
- Generation of annotated dataset and conversion into optimized data formats.
- Applied MobileNetV2 model for recognition to work in the android app
- Python with PyTorch framework used to implement the deep learning model.

PROJECTS

Medical Image Recognition using Vision Transformers

July,2022 – September,2022

github.com/Garvit-k/medvit

- To classify different medical images such as Computed tomography (CT), Magnetic Resonance Imaging (MRI), X-Rays scans of distinct parts of the body while the model being efficient and robust
- Project employs Python and PyTorch framework for Vision Transformer implementation.
- Achieved 99.44% of accuracy running on 1 GB RAM and 1 CPU Core.

Profiling of BERT on NVIDIA A100

April,2022 - Ongoing

- Detailed profiling using TFprofiler, profile benchmarking
- Profiling of model with Nsight systems and TFprofiler
- Ran BERT and TensorFlow on NVIDIA A100 GPU
- Ran model on AWS EC2

3D - UNET model for MRI scan brain tumour segmentation

January,2021 – March,2021
github.com/Garvit-k/Unet-segmetation

- Developed model with BRATS 2021 dataset
- Experimented with multiple architecture for models to get the most efficient network
- Implemented a web application to let user upload MRI scan and get predicted segmentation
- Used Flask, TensorFlow, Python, NVIDIA TESLA P100 GPU

NFT Metaverse in Minecraft on Stellar Blockchain

December,2022 – January,2022
github.com/Garvit-k/GnawBears

- Added Stellar wallet integration with verification process.
- NFT verification and transaction handling on Stellar Blockchain Network
- Used Java, PaperMC, Stellar SDK.

Secure Storage – File storage system

October,2020 – November,2020
github.com/Garvit-k/secure-storage

- Developed a file storage server based on Flask
- Encrypted file storage with zero access encryption based on AES.
- Used Java, MongoDB, Web Application

Currency Convertor

August,2020 – August,2020
github.com/Garvit-k/currency_convertor

- A Flutter android application to convert major currencies in real time.
- Supported all major fiat and crypto currencies.
- Used Flutter, REST APIs

Courier Tracking System

August,2020 – August,2020

- System to track and accurately show where the packages are on a GUI based application.
- Used Java Spring, MySQL

CERTIFICATIONS

- JPMorgan Chase and Co. Software Engineering Virtual Experience
- Mobile Application Development using Flutter by SkyFi Labs
- Neural Networks and Deep Learning, Coursera
- 2020 Complete Python Bootcamp: From Zero to Hero in Python, Udemy
- What is Data Science? ,IBM on Coursera
- Programming in C++, Somitel Computers
- Bronze Medal, The International Award for Young People

LEADERSHIP AND VOLUNTEERING EXPERIENCE

- Charity drives and clothes distribution for BLOOMING BEACON NGO
- Blood Donation drive for Chhattisgarh Blood Donor Foundation
- Ration distribution at the time of COVID-19 for Association of Democratic Human Rights
- Public Relation for Aaruush Technical Festival
- Member, Software Association, SRM IST