

PRAVEEN RAJ

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praveenraj087

EDUCATION

Stony Brook University

Aug 2022 – May 2024

Master of Science, Computer Engineering

Stony Brook, NY

Relevant Coursework: Analysis of Algorithms, Computer Vision, Big Data Analytics, Fundamentals of Machine Learning, Wireless Networks, Quantum Electronics, Advanced VLSI System Design, Computer Architecture

Vellore Institute of Technology

Jul 2018 – Jun 2022

Bachelor of Technology, Computer Science - **8.64/10**

Andhra Pradesh, India

Relevant Coursework: Design and Analysis of Algorithms, Object Oriented Programming, Operating System, Database Management Systems, Artificial Intelligence, Computer Networks, Big Data and Mining

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript, HTML, CSS, SQL, PHP, MATLAB, R

Technologies/Frameworks: TensorFlow, PyTorch, Keras, Numpy, Pandas, OpenCV, ReactJS, NodeJS, ExpressJS, Mongo, Hadoop, Spark, Flutter, Selenium, Linux, GitHub

Developer Tools: VS Code, Android Studio

EXPERIENCE

Society for Health and Medical Technology

Jan 2022 – Jul 2022

Data Science Intern

Noida, India

- Developed a chat-bot using **Bidirectional Transformers (BERT)** on the **Keras** and **TensorFlow** Framework
- Built an online Deep Learning Disease Predictor using **ResNet-50** architecture and **Transfer Learning**
- Collected training data for the Disease Predictor using **Selenium**

PROJECTS

Best CPC Score: A Cardiac-Arrest Recovery Predictor

Python, PyTorch, PySpark

May 2023

- Developed **Two Novel Regression Models** using PyTorch to perform Predictive Analysis on **Continuous EEG Data** from Patients on the **Cerebral Performance Category Score**
- Leveraged Hypothesis Testing to compute **positive statistical similarities** between Patient EEG Data
- Performed **Locality Sensitive Hashing** using PySpark on **72-Hour EEG cycles** to identify similar Patients **faster by 200 percent**

Brain Tumor Detection using Deep Learning

Python, Keras, TensorFlow

Jan 2022

- Implemented a Deep Learning model to detect Brain Tumors using the **UNet** architecture.
- Has an overall testing **Accuracy** of **90 percent**
- Takes a **4-Flair MRI** as an input and gives a mask as the output over the predicted area.

Diabetic Retinopathy Diagnosis

Python, Keras, Flutter

Jun 2021

- Built a custom Deep Learning model to diagnose Diabetic Retinopathy using a **modified VGG16** architecture and **Transfer Learning**.
- Achieved a Validation accuracy of **92 percent** in **Binary Classification** and **87 percent** in **5-Class Configuration**

Prototyping with Raspberry Pi in Healthcare Domain

R, Python, Matplotlib

Oct 2020

- Performed a comprehensive analysis on the usage of Raspberry Pi's in the healthcare field using R

PUBLICATIONS

Prototyping with Raspberry Pi in Healthcare Domain

International Journal of Advanced Computer Science Applications, 11th Volume of October 2020 Edition

Applications of Arduino in Healthcare: A Bibliometric Study

IEEE - International Conference on Advanced Computing and Communication Systems, January 2022