SANAT B SINGH

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CARRIER OBJECTIVE

Passionate and motivated about AI for healthcare & social good and Computer Vision Applications. I aim to pursue as a researcher with interdisciplinary interests and domains comprising of Deep Learning, Computer Vision & Bio-Medical Image analysis.

EDUCATION

Kalinga Institute of Industrial Technology, Bhubaneswar *2017 - Present*
Bachelor of Technology - BTech, Computer Science and Engineering CGPA: 8.77

The Khaitan School, Noida *2016 - 2017*
Class XII (CBSE) Overall Percentage: 83

Khaitan Public School, Noida *2014 - 2015*
Class X (CBSE) CGPA: 9.8

PROJECTS

Computer Aided Diagnostic System for ACL Tear Detection
A Computer Aided Diagnostic System to detect ACL (Anti cruciate ligament) tear in MRI scans. A CNN classifier is built using Alexnet on MRNet dataset released by Stanford ML group. Data augmentation was applied while training to deal with less number of data samples. The AUC achieved was 0.858 on train set and 0.876 on validation set.

(Website live on request)

Computer Aided Diagnostic System for Malaria Detection
A lightweight Computer Aided Diagnostic System for detection of malaria infected cells by examination of blood smears. A custom lightweight ConvNet is implemented with less than 8 million parameters which comes close to Densenet121 in terms of parameters but shows 10x faster inference time with far less resources on CPU deployment thus eligible for deployment on edge devices. Validation accuracy achieved was 95.6%, the model works on par as compared to state of the art Resnet-18 network. The model is hosted on an AWS EC2 instance.

Website: https://malaria.zyik.ml

TECHNICAL SKILLS

Languages	Python,C,C++,Java
ML Frameworks	PyTorch, Tensorflow, Scikit Learn, OpenCV
Web Development Tools	Flask, Nginx, HTML, CSS
IDE	Visual Studio Code, Jupyter Notebook
OS	Windows, Linux (Fedora - CentOS, Debian - Ubuntu)
Cloud & DNS	AWS, Cloudflare, Freenom

EXPERIENCE

Machine Learning Instructor November 2018 - Present
Konnexions

· Part of core team. Working as an instructor for teaching Machine Learning. Konnexions is the official Web Development & IT society of KIIT working under KSAC (KIIT Student Activity Centre) with aim to provide and foster professional advancement opportunities among individuals and provide a way to keep up with current technologies and trends

Core Team Member - ML March 2019 - January 2020
DSC KIIT

· Member of Developer Student Club KIIT with Machine Learning as domain. DSC is a flagship program by Google for aspiring student developers.

COURSES UNDERTAKEN

Deep Learning Specialization (Coursera),

Intro to Deep Learning with PyTorch (Udacity),

Machine Learning (Coursera)

ACHIEVEMENTS

Intel Edge AI Scholarship (Udacity)

Secure & Private AI Scholarship from Facebook (Udacity)

Pytorch Scholarship Challenge from Facebook (Udacity)

EXTRA-CIRRUCULAR

Became an expert at Chegg India under Computer Science.

Moderator at Koderunners - a coding society with aim to promote coding culture across KIIT

Participated in Chimera 2019.

Participated in KIIT Fest 5.0 (2019).

Participated in WAC (What After College) workshop at IIT Bhubaneswar on IoT, built a line follower robot.

PERSONAL TRAITS

Self Motivated

Flexible, Can adapt to crucial situation

Determined

Teamwork Skills

Good Communication Skills

Always Learning