

### **AKHIL SANKER**. RA1811026020035

Course: B.Tech, Computer Science and Engineering, 2022

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ACADEMIC DETAILS				
COURSE	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	SCORE	YEAR
CLASS X	Army Public School	CBSE	9.2 CGPA	2015
CLASS XII in Computer Science	Army Public School	CBSE	74.8 %	2017
B.Tech	SRM Institute of Science and Technology - Ramapuram Campus		9.76 CGPA	2022

Subjects / Electives	
Technical Proficiency	Algorithms, Data Science, Natural Language Processing, IBM Watson Analytics, C++ Language, Deep Learning, Web Development, Tensorflow, Artificial Intelligence, Computer Vision, Data Analytics, SQL Programming, Data Structures, Python3, Version Control

## SUMMER INTERNSHIP / WORK EXPERIENCE

Machine Learning Developer, Altrekruit

Dec 2020 - Feb 2021

Full Stack Developer, Reallos Technologies

Dec 2020 - Present

Oct 2020 - Dec 2020

- Developing Web Apps using ReactJs, Html-Css, Javascript
- · Documentation Works

# Machine Learning Engineer / Al Developer, Reallos Technologies

- Developing and Deploying Machine Learning Models.
- Development of API's using python.
- Documentation
- Testing and Debugging

## Machine Learning Engineer, Omdena

Aug 2020 - Present

- Working on Preventing Online Child Abuse.
- Working for "Save The Children" Organization.
- $\bullet \ \mathsf{Part} \ \mathsf{of} \ \mathsf{67}\text{-}\mathsf{member} \ \mathsf{team} \ \mathsf{from} \ \mathsf{27} \ \mathsf{different} \ \mathsf{Countries}.$

### Data Analyst, Positive Integers Limited

Mar 2020 - Aug 2020

Jan 2020 - Mar 2020

- Performed Day to Day Activities of a Data Analyst. Predictive Analysis, Modelling Data to ensure meaningful insights Extraction.
- Complex Data Mining, Web Scraping, Visualization, Representation of data was performed with Excel Sheets for Business Analysis.

# Technical Reviewer, Packt

- Reviewed Courses based on Python, Data Analysis, Machine Learning, Node-Red.
- Prepared and reviewed questionnaires for students and course attendees.

### **PROJECTS**

# English Language Proficiency Model - Machine Learning

Dec 2020 - Present

A complex Machine Learning Pipeline Along with multiple Models to produce a score of "English Reading Skill Assessment".

Still Under Developement

# Compound2Drug - Drug Discovery

Nov 2020 - Jan 2021

A network data is composed of nodes and edges. An example of such network data would be social network data where nodes are people and their interests and edges are interconnections between them.

Many useful applications such as customized suggestions for social media users have been developed through the use of Machine/Deep learning algorithms which accomplish this through node classification and link prediction protocols.

The bindingDB database was downloaded and a network was constructed using NetworkX wherein the nodes where compounds and proteins and edges where the interactions between them. Lower the IC50 value for a compound to inhibit a particular protein, the shorter the edges were that link them together.

Each compound is identified using the PubChem Compound ID (CID) and proteins are identified with the Protein Data Bank ID (PDB ID). To generate 2D embeddings of the network, the node2vec [29] python package was used.

The module learnt the embeddings of 65 graphs and they were used to perform a machine learning/deep learning based multi-class classification .

# PDF Signature Manipulator - Computer Science - Core

Oct 2020 - Nov 2020

- Manipulating PDF's

- Reading and Extracting Data and adding Information using an automated process.

Abusive Text Detector - Machine Learning

Sep 2020 - Oct 2020

Box Framework Automation - Analytics & Analysis

Aug 2020 - Aug 2020

The Repository contains (Partial - Sample & Worked out) Codes of the project "Box Framework". Box Framwork is a Data Analytics based project (Automation Framework for a data-analytics pipeline), that i worked on during my internship period at Positive Integers.

The project uses Data Analytics use-cases to form boxes (Sets / Containers) of products that can be sold into the open markets.

I've uploaded the code and methodologies along with the intense logic that has been used in the project .

The Required runtime is around 5 mins for a "Typically" Huge Dataset. The project takes into account by the usage of various py-libraries such as (numpy,pandas,matplotlib,math etc.).

The entire code hasn't been uploaded & is not ready to "run in a click", and is partially available for viewing purpose.

### Tool for Al powered research in humanities - Machine Learning

Jul 2020 - Aug 2020

A Machine Learning Text Summarizer, Specifically meant to Summarize large books / scriptures for educational purposes.

#### Outlet Finder - Computer Science - Core

May 2020 - May 2020

The Program is given a few end coordinates of a specific place.

The algorithm calculates rest coordinates and covers the entire region around to create regional Clusters. The purpose is to use google API and find nearby stores ( useful in cases of a pandemic ) since it'll be pretty hard and dumb to go around and search for every single shop. A program just to find out the nearby outlets and sort them out according to the needs

#### Covid19 Tool for Drug-Discovery - Machine Learning

May 2020 - Jul 2020

An AI - Powered tool fro efficiently suggesting the best drugs for Covid-19 ( Depending upon the protein target a drug is supposed to attch to )

CERTIFICATIONS		
CERTIFICATION	CERTIFYING AUTHORITY	DESCRIPTION
TensorFlow: Advanced Techniques Specialization	Deep Learning AI	
Deep Learning Specialization	Deep Learning Al	
Machine Learning Specialist	Linkedin	

#### POSITION OF RESPONSIBILITY

Technical Executive - Project Head - LandMark Rmp Jun 2020 - Present

Campus Mantri - GeeksforGeeks May 2020 - May 2021

Microsoft Learn Student Ambassador - Microsoft Apr 2020 - Present

Al Researcher - Agrim Lab Feb 2020 - Present

Campus Buddy - Kreon Financial Services Dec 2019 - Jan 2020

### AWARDS AND RECOGNITIONS

Microsoft Learn Student Ambassador | Microsoft
Prime Minister's Scholarship | Kendra Sainik Board
State 1st - International Informatics Olympiad | Silverzone
Apr 2020
Nov 2018
Oct 2015

# **PUBLICATIONS**

Target2DeNovoDrug: a novel programmatic tool for deep learning based de novo drug design for a target of interest

Journal name: biorxiv | Publication date: Dec 11, 2020

A program to automate the discovery of drugs for West Nile and Dengue virus

Journal name: tandfonline | Publication date: Nov 21, 2020

Target2Drug: anovelprogrammatic workflow to automate In Silicodrug discovery

Journal name: chemrxiv | Publication date: Nov 19, 2020

Compound2Drug - a Machine/deep Learning Tool for Predicting the Bioactivity of PubChem Compounds

Journal name: chemrxiv | Publication date: Oct 5, 2020

VOLUNTEER EXPERIENCE

Passport availability: true

National Service Scheme - Role: Volunteer | Cause: Education

Jan 2019 - Feb 2020

PERSONAL DETAILS			
Date of birth: 20 January 2000	Father's name: Biju M S		
Permanent address: Akhil Bhavan Perukavu PO PRA a21, THIRUVANANTHAPURAM, THIRUVANANTHAPURAM, Kerala, PIN - 695573	Languages known: Malayalam, English, Tamil, Hindi, German		
Permanent contact number: 7907738363	Nationality: India		