KARTIK SHARMA

Course :**M.Sc. (Hons.)**, Economics and **B.E. (Hons.)**, Computer Science, 2023
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CGPA :8.68

ACADEMIC DETAILS

COURSE	SPECIALIZATION	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	SCORE	YEAR
CLASS XII	SCIENCE	Mansarovar Public School, Bhopal	CBSE	94.2 %	2018
CLASS X		Delhi Public School, Bhopal	CBSE	10 CGPA	2016

Subjects / Electives	Object-Oriented Programming, Data Structures and Algorithms, Database Systems, C Programming, Discrete Mathematics in CS, Probability and Statisitcs, Linear Algebra, Econometrics
Technical Proficiency	Python3, Java, C++, C Programming, SQL Programming, Machine Learning, Deep Learning, Tensorflow

WORK EXPERIENCE

Summer Intern, Kizora Software Private Ltd **Jun 2020 - Jul 2020**

Designed a microservice (Geo Solution Service Hub) using **Flask Framework (Python)** with the following functionalities:

- Calculate the distance between any two locations on a map and get the fastest route according to the mode of travel using **Google Maps API**.
- Get the latitude/longitude of a location by placing a marker on the map.
- Maintaining **SQL database** of searched routes to save API calls.

PROJECTS

Deep Learning Techniques for Multivariate Time Series Analysis - Deep Learning **Jul 2021 - Present**

- Applying deep learning techniques to estimate crop yield production using **Sentinel satellite**.

Wake-up Word Detection - Deep Learning **Jul 2021 - Jul 2021**

- Constructed a speech dataset from synthesized data and implemented a trigger word detection model with over **90% accuracy**.
- Trained a **GRU(Gated Recurrent Units)** to detect when someone has finished saying the word "activate".

Portfolio Management using Machine Learning - Machine Learning **Jan 2021 - May 2021**

- Worked on top 50 stocks listed on Nifty to effectively **optimize asset allocation**, and compared performance with standard portfolio management algorithms.
- Achieved **12% returns** on portfolio even during the Covid-19 period.

Car Detection with YOLO - Deep Learning **Jun 2021 - Jun 2021**

- Implemented object detection on a car dataset using the very powerful **YOLO model**.
- Used the pre-trained YOLO Model for image classification and stacked **non-max suppression** using **IOU Grid analysis** to accurately make bounding boxes around detected cars.

Art Generation with Neural Style Transfer - Deep Learning **Jun 2021 - Jun 2021**

- Used transfer learning on the **VGG-19** network to generate new artistic images.
- Implemented a cost function that minimizes the content and style cost by running both the images through the pre-trained VGG-19 model.

AWARDS AND RECOGNITIONS

Amazon ML Challenge (Hackathon) | Amazon India **Aug 2021**

- Placed in **Top 50** among participating 3500 teams in creating ML model to accurately (**67% accuracy**) assign Product IDs to a large dataset of amazon products.

ML Summer School | Amazon India **Jul 2021**

- **Shortlisted** for Amazon Machine Learning Summer School, an integrated learning program to make students industry-ready. An ML and Coding-based selection test was conducted for only 20 selected Institutes of India.

Technothlon'15 | IIT Guwahati **Oct 2015**

- Technothlon is an international school championship conducted by IIT Guwahati with the participation of over 12000 students.
- Secured **All India Rank 31** in Technothlon'15 Prelims.
- Secured **4th rank** in Mains conducted at IIT Guwahati Campus among the top 50 teams that were invited.

VOLUNTEER EXPERIENCE

National Service Scheme, Bits Pilani - Role: Volunteer | Cause: Social Services **Aug 2018 - May 2020**

- Volunteered in Health and Public Awareness Department.
- Volunteered in Blood Donation Camps, Eye Donation Camp, and various Health camps in Pilani. Delivered Lectures in Village Schools on various awareness topics.