



STARTUP SAGA - A BUG IN A STARTUP

Problems Statements

TRACK 1: AI & ML, IoT/Embedded Systems

Problem Statements #1:

Category: API only, AI & ML

Statement By: Mr. Ashish Singh (Aviabird)

Title: Resume Contextual Data Parser, Classifier

Objective

To build a service which can consume resumes and return contextual labeled data with the highest accuracy in an API consumable format.

Background

Aviahire is ATS (Application tracking system) software used by many funded and large-scale companies. Primarily used by the Recruitment department, this software has been developed first for the internal needs but later was offered to other organizations at a rate which compared to the industry is higher but that justifies the overall value the company receives from using Aviahire software as an ATS. Customers are waiting eagerly for the LMS system after the massive success of PMS (performance management system) software which the company released to its customers last December.

Aviahire can use this service to considerably improve its offering to more than 50k candidates in the job market across many industries.

Sample size: 1.5k resumes for alpha/beta testing

Overall corpus: more than 45k

Problem Statements #2:**Category: Computer Vision & ML****Statement By: Mr. Abhijeet Deogirikar (CopperCloud IoTech Pvt Ltd)**

Camera based attendance system in an office. Face recognition - ideally should be fast operating, so that the employees can "walk" in front of the camera, and it will detect and identify the person (no need for them to "stand and wait" for the system to work).

Bonus – Bonus points if the system is easy for setting up for new faces - i.e., you should not need hundreds of sample pictures for adding a new person to the database.

Problem Statements #3:**Category: Computer Vision****Statement By: Mr. Abhijeet Deogirikar (CopperCloud IoTech Pvt Ltd)**

Create a Computer Vision program that detects a human and estimates how far away the human is standing from the camera. This is a "single-camera system" (as opposed to a binocular camera solution with 2 cameras) . Tolerance of 10% is acceptable (i.e. if a human is standing at 50 feet, +/-5 feet error is allowed).

Note: You are allowed to assume the average height of the human as 170 cm, for calculation purposes, as this is a single camera system. (For objects of unknown size or variable size, you have to assume a size, or use a 2-Camera system, for estimating distance).

For more information on any of these, please contact

Problem Statements # 4:**Category: IoT/Embedded Systems****Statement By: Mr. Abhijeet Deogirikar (CopperCloud IoTech Pvt Ltd)**

Create a "smart room scanner" that scans a room and detects where a human is standing in the room, and displays their position in an X-Y grid on a web page. As the human moves around the room, the webpage updates the position/dot on the XY grid in real-time.

Note: for purposes of this event, it doesn't have to be human - any object can be detected. By making sure that the boundaries of the room are known and recorded in the system, any large object within those boundaries may be detected and plotted.

TRACK 2: Web Technologies and Software Development

Problem Statements # 1:

Category: web development

Statement By: Mr. Rohan Datta (DeepInfo Lab)

In the post CoViD world, things will quickly move online. With interfaces like Zoom, MS Teams, etc. workplace communications are still active and dynamic. However small firms are still offline. Propose any solutions for digitizing the workplace online and a method to shift them to these digital environments with all pre-existing resources in a seamless manner.

Problem Statements #2:

Category: Web development

Statement By: Mr. Deepak Kumar Yadav (Momentum Robotics)

Create a task scheduler Dashboard for robotics fleet connected over MQTT/websocket locally.

1. Create interactive UI to create tasks & scheduling mechanism (ie Pick-up of pallets from location A to be delivered to location B every morning X o'clock)
2. Dashboard to display connected robots in fleets with their location representation on grid map. (Robot feedback data available for current location, speed, charging stats and able to receive Goal location and other instructions.)

Problem Statements # 3:

Category: Networking Application Development

Statement By: Mr. Deepak Kumar Yadav (Momentum Robotics)

1. Setup an intelligent LAN network communication for message passing between devices using MQTT/ Web Sockets or others.
2. Communication should be smooth while changing different routers in LAN and devices should have reliance auto address assignment.
3. LAN to be connected with the Internet for data logging on remote servers.

Problem Statements # 4:

Category: Robotics Software Development

Statement By: Mr. Deepak Kumar Yadav (Momentum Robotics)

1. Build an intelligent task dividing and scheduling algorithm for the robotics fleet on the basis of occupancy, task queue, location and type for different robots.
2. Server will have various tasks in queue and algorithms should be able to relay and track the tasks for multiple robots with client acknowledgment and feedback achieving the most efficient turnaround.

Problem Statements # 5:**Category: Web Development****Statement By: Mr. Abhijeet Deogirikar (CopperCloud IoTech Pvt Ltd)**

We want to make an online aggregator platform for logistics companies to let the customers choose the best service provider on the basis of rate/service quality/reach and transit time.

Live rates , Comparison , Tracking of goods and Documentation all in one portal.

This will be one of the 1st such platforms in India.

TRACK 3: Digital Marketing

Problem Statements #1:**Category: Digital Marketing****Statement By: Mr. Pawan Yadav (Digital Persistent)**

How Digital Marketing has become an imperative for Business Growth.

The STARTUPS are encountering in establishing their client base. The Start-ups are competing with established brands when it comes to promotion activities to establish customer base. It is an uphill task for any startup to compete with the promotional budget that any established brand allocates for promotional purposes. But that can be overcome with the power of marketing. For any start up there are many challenges like validating the start-up idea, arranging the funds, forming a good team and scaling up the idea and many more. This all needs huge funds. Even before moving to implement marketing strategies, the budget has been exhausted. This, however, gets quite challenging given their limited budget and resources.

This study should aim to highlight that the start-up founders opt for the right strategic digital marketing approach and case studies, thus diminishing the budgetary payloads for marketing to establish the client base. Not getting the clients for a defined product or service is one among the major challenges for many start-ups and sometimes turned into failure. This problem statement should highlight the case studies in presentation format to guide young start-ups to become cost effective when it comes to marketing through step-by-step methodologies to enhance the success probability. The path might be looking longer to pursue but implementing the right digital strategies enhances the success rate. Thus, this will surely motivate youth to opt for Entrepreneurship as a career more optimistically to build up the Start-up Ecosystem with little spent on marketing.