SRI RAMAKRISHNA ENGINEERING COLLEGE

[Educational Service: SNR Sons Charitable Trust]
[Autonomous Institution, Accredited by NAAC with 'A' Grade]
[Approved by AICTE and Permanently Affiliated to Anna University, Chennai]
[ISO 9001:2015 Certified and all eligible programmes Accredited by NBA]
VATTAMALAIPALAYAM, N.G.G.O. COLONY POST, COIMBATORE – 641 022.

In Commemoration of the Silver Jubilee Year

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING
&
DEPARTMENT OF INFORMATION TECHNOLOGY
in association with

Organizing an Intra College Event

AN EIGHT HOUR AI HACK-A-THON

On

14th September 2019

CONVENOR
Dr. A. GRACE SELVARANI, Prof & Head/CSE
Dr. M. SENTHAMIL SELVI, Prof & Head/IT

Faculty Co-ordinators
Mrs. N.Saranya, AP(Sr.G)/IT, 9095493113
Mrs. M.Sri Geetha, AP/CSE, 9500853297

Club In-charge
Dr. R. Anuradha, Asso.Prof/CSE

About Turing Techiez

Turing Techiez is an SREC AI students club started in 2018. This Club aims at transforming SREC Next Revolution in providing AI man power to the world. The objective is to equip the students with the ability and skills to analyze, design and develop AI based computer systems.

About the AI HACK-A-THON

This intra college AI hack-a-thon aims to exhibit students hidden talents in developing AI based solution to real time problems. This also intend to incorporate inter disciplinary culture between the students.

Pre-Event Discussion: 12th Sep 2019

AI HACK-A-THON: 14th Sep 2019 (8:30am to 4:30pm)

Final Presentation: 14th Sep 2019 (4:30pm to 6:30pm)

Registration Fee: Rs. 500/- per Team

Criteria for Team Formation

- Maximum team size: 4 members (excluding Mentor)
- Inter disciplinary team with at least one third or second year
- One member should be Turing Techiez
- One Mentor (any department)

Attractive prizes to be won along with some cool internship and mentorship support from industry

For Registration and Problem Statement Visit http://srec.ac.in/ai/news.html

Industry Proposed Problem Statement

1. Recommendation System

There's an e-commerce store

- when a user visits a product page, similar items to the item being viewed must be shown below.
- reviews for a product must be categorised based on "emotion"
- seasonal recommendations should be shown up front when a user opens the site.
- if you add items to cart, items which are frequently bought together should be shown below the cart.

2. Prediction from log data

There's an application running on a server. The application logs data into log files. All exception logs and access logs are maintained. The log file format is something like:

{"level":"WARNING","timestamp":1565592521000,"message":"An exception occurred while updating data.","data":{"id":"2d5cab72-f733-4b83-a698-fc4f2d203258","value":9123},"id":"229ff584-8201-4412-9fd4-8fe2721b218f"}
{"level":"CRITICAL","timestamp":1565592521045,"message":"Updating data failed.","data":{"id":"2d5cab72-f733-4b83-a698-fc4f2d20cd58","value":9123},"id":"229ff584-8201-4412-9fd4-8fe212312123"}

(The above is just an example. Logs can have any number of details. Get a log dump from some software for better understanding.)

The application crashes when a CRITICAL level error occurs causing unsaved data to be lost. Not all types of WARNINGS lead to CRITICAL errors Can deep learning be used to predict when the application will crash so that administrator can warn the user or take mitigative actions?

3. Text prediction

Context sensitive predictive text input: When a user is typing in a textbox in an application, it would be cool if the text box could suggest text to input depending on the context. Say, I'm filling in values in a field which asks "How did you feel about our product?", the suggestions could be "great", "awesome", "not good", etc. And when the user switches to another question which asks "Would you recommend our product to your friends?" the suggestions could be "yes", "no", etc

General Problem Statement

Health care

i) Dermatological disorder identification.
ii) Chronical disease Prediction
iii) Oncology, Pathology based disease identification
iv) Chatbot for hospital maintenance

Agriculture

i) Plant heath detection
ii) Fruit quality identification
iii) Crop yield prediction
iv) Chatbot for subsidiary schemes for farmers

Predictive Maintenance

i) Monitor machine/equipment failure and schedule maintenance with any kind of machine in any industry

Vehicle Governance

i) Traffic Analysis
ii) Vehicle type Identification in Indian roads
iii) Traffic signal control based on crowd detection

Cyber Security

i) Network intrusion detection and prevention
ii) Cyber-attack forecasting
iii) Botnet Detection
iv) Chatbot for identification & notification for intrusions
v) Face detection in video surveillance

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