



Open & School Category
Theme: Changing our world with AI
Date: 13 - 14 July 2018

S/N	Challenge Statement
CXA-01	<p><u>Challenge Title:</u> Data Visualizer</p> <p><u>Description of the problem:</u> Data is the key driving force behind many of today's transformative technologies, especially for Artificial Intelligence.</p> <p>When dealing with large of amounts of data which are not available in a structured form but as text format, it will take the person managing the data some time to make sense out of it. Visualizing the data will allow more clear and effective communication of information to users.</p> <p><u>Challenges:</u></p>

	<p>Design a solution that is able to get user inputs from a web browser (e.g. key word search), and from the search results, output to an Interactive Data Dashboard (e.g. D3.js). The solution may incorporate the following:</p> <ul style="list-style-type: none"> • natural language processing (NLP) • filtering and using the top 100 results from the search engine • categorising and grouping the extracted data by related concepts. • allowing user to zoom in and out by different levels of resulting information (i.e. granularity) <ul style="list-style-type: none"> ○ top level of information display (e.g. Concepts, etc) ○ lowest level of information display (e.g. url and link to the source of detailed information/articles)
CXA-02	<p><u>Challenge Title:</u> CxO Command Center for the Intelligent Enterprise</p> <p><u>Description of the problem:</u> With a vast array of information stored in disparate data sources across an organization, and external public data that would help organizations gather market information, IT departments struggle to blend and present a holistic view of data (both private and public) to senior executives, CxO's to make swift and data-driven decisions.</p> <p><u>Challenges</u> Design an integrated Command Center Screen to provide a single view of KPIs to CEO - this will include sales, operations, finance and HR data.</p> <p>Include link to voice-activated chatbot for natural language retrieval of information. The solution must consider advanced analytics to predict financial performance for the full financial year.</p> <p><u>Resources:</u></p> <ol style="list-style-type: none"> 1. MicroStrategy SDK http://www2.microstrategy.com/producthelp/10.4/InstallConfig/Content/InstallationConfig/MicroStrategy_SDK.htm 2. Getting Started with MicroStrategy SDK https://community.microstrategy.com/s/question/0D54400004zXw4sCAC/getting-started-with-microstrategy-sdk

	<p>3. Introduction to MicroStrategy Web SDK https://lw.microstrategy.com/msdz/MSDL/GARelease_Current/GARelease_Archives/940/docs/mergedProjects/websdk/topics/other/Introduction_to_the_Web_SDK.htm</p>
CXA-03	<p><u>Challenge Title:</u> AI empowered chatbot to improve daily lives</p> <p><u>Description of the problem:</u> Who wouldn't wish for a 24 x 7 personal assistant in our busy lives. While there are increasingly more chatbots (aka talkbot, chatterbot, Bot, IM bot, interactive agent, or Artificial Conversational Entity) assisting us in devices/websites/apps, there are many more areas which chatbots potentially can assist us in our daily lives. Chatbots can also free up more human resources to perform higher value added tasks by automating the simpler requests currently fulfilled by humans.</p> <p>Chatbots make it easier for us to request for information using a natural language. According to studies, 80% of businesses want chatbots by 2020, and chatbots are expected to cut business costs by \$8 billion USD by 2020.</p> <p><u>Challenges</u> Develop an AI empowered chatbot to make our daily lives better. Participants are to address at least one of areas listed below.</p> <ul style="list-style-type: none"> a) Finance/Investment b) Healthcare/Care for the elderly c) Education d) Lifestyle (personal assistant/sports)
CXA-04	<p><u>Challenge Title:</u> Using AI to spot fake news</p> <p><u>Description of the problem:</u> Recently, the world has witnessed the adverse effects of how fake news can sway the outcome of elections, manipulate public thinking to incite racial/religious/social tensions or worst of all, violence. Internet and social media users are finding it increasing difficult to decipher what's real and fake due to the vast amount of information content being churned out.</p>

Challenges

Develop a solution to determine whether a social media post is fake.

Resources:

Exploring how artificial intelligence technologies could be leveraged to combat fake news.

STANCE DETECTION <http://www.fakenewschallenge.org>

Singapore government list of facts <https://www.gov.sg/factually>

Combating fake news in Singapore <http://www.nlb.gov.sg/sure/>