

MI competition 2017 Summary of Entries

Entry 1: Parth Raghav (iniento12@gmail.com), Private Entry

Name of System: EURUS: A Study in Distributed Multimodal Autocorrecting Schemes for Cancer Detection Programs

Description of system: The aim is to develop a client-side program to diagnose NSCLC lung cancer with high accuracy given a small feature vector and a unique server model to take the results from different trials conducted by different doctors and develop a peer-to-peer correction scheme for the cancer detection model made forthwith. An adversarial Neural Network model has been trained which learns to detect lung cancer.

Entry 2: Yizi Zhou (y.zhou2@lboro.ac.uk), University of Loughborough

Name of System: Self-adaptive Green Logistic Simulator

Description of system: It is a problem-solving system aiming to support the solution engine for field resources scheduling in BT Field Schedule. This algorithm is applied to optimise the schedules and routes of Fleet vehicles with respect to minimising CO2 emissions. There is a trade-off between performance, operational cost and green logistics aspects – there is not only one setting but rather a set of possible configuration of algorithms which are suitable in different situations. Estimating this impact is important to take the right sustainable decision when planning vehicle replacement for instance. The demo will show the algorithm simulation part of the system.

Entry 3: Martin Wheatman (martin@wheatman.net), Private entry

Name of System: Enguage - The Language Engine

Description of system: *Enguage* is a natural language understanding system. Working in conjunction with voice recognition software, it acts as a user interface - a bridge between arbitrary utterances and bespoke software. It is, itself, written in natural language. The purpose of this demonstration is to show that inductive language can be used to program the system on-the-fly, removing the need for a program as a written artifact. Enguage gives a developer a natural language interface to bespoke software, giving access for many technologically disenfranchised groups: anyone who has difficulty with using screens keyboards, including written artifacts.

Entry 4: Toby Leheup (toby.leheup@credit-suisse.com), Credit Suisse

Name of System: Talos

Description of system: Talos is a Deep Learning system that contextually classifies phrases into "Benign" or "Malign" in the context of financial activities. This system is currently used in a production eCommunication Surveillance system. The system has been extended to perform on-demand modelling, sentiment analysis and real-time model comparisons. It is also able to capture human feedback in order to do continuous learning. Talos is able to understand textual phrases to a near-human standard. For example, Talos is able to understand the contextual difference in potential concern between the phrases "just between us, I can't buy any more APL" and "just between us, I can't buy any more apples" despite high similarity between the phrases themselves. It does this consistently enough across a wide range of phrases to be used as an enrichment to surveillance systems.