## Avoid drift with continuous deep learning

Bijan Mohammadi Univeristy of Montpellier and Bondzai.io, France bijan.mohammadi@umontpellier.fr

Keywords: Artificial Intelligence IoT (AIoT), on-device learning, model drift, event-driven vs. intent-driven learning.

When the model performances degrade, intent-driven solutions based on TinyML are attractive to ease the account of new data by the models, testing and flashing the models onto devices. These solutions tend to answer the difficulty for embedded engineers to maintain the models up-to-date. But, intent-driven solutions are bound by necessary user interventions, back and forth between remote learning and testing and deployment and the induced latencies. We need to remove the necessity for the user to proceed with data collection and architecture new trainings. Data-driven should be 'event'-data driven, not 'intent'.

Davinsy, Bondzai's autonomous machine learning system, continuously learns from real-time incoming data. This strictly removes the possibility of model drifts with respect to the data. This is a 'must-have' when targeting industrial applications where variability is the rule not the exception making the consideration of real live data through an event-driven architecture necessary without user intervention.

More details on Bondzai.io