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| **Summary** |  |
| **Partner name** | Intelense Inc. |
| **Project location** | Toronto, Ontario |
| **Contact details** | Dinesh Prasanna, CEO Intelense |
| **# positions** | 2 Post Docs |
| **Project desired start & end dates** |  |
| **Preferred Academic institution(s)** | Any |
| **Discipline(s)** | Computer Vision/ AI/ Deep Learning/ Reinforcement Learning |
| **Preferred language** | Either is OK |
| **Mitacs “BD” name** |  |

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| **Research project** |  |
| **Project title** | Reinforcement Learning for Anomaly detection in realtime camera feed |
| About the company max 200 words | Brief on what we do; Intelense backed by IBM-MCC has built an artificial intelligence technology to help emergency services, hospitals, and other public and private sectors to detect personal attacks, falls, suspicious activities and other emergencies from live video feed while keeping individual identities safe. We are currently working with Toronto Police Services, Translink as well as El-Salvador for a smart city integration for efficient management of their emergency management solution. |
| Describe the project max 300 words | The project consists of building a deep reinforcement model for identifying emergency activities from live camera feed. Which encapsulates a computer vision model that can identify anomalies and a deep reinforcement learning model which classifies the detected anomaly into categories such as health related issues, crime related issues etc. It also involves in building a computer vision module that is computationally effective to handle multiple cameras at the same time |
| Required expertise/ skills  max 200 words | Computer Vision and Deep Reinforcement Background with the following;   * Built autoencoders for computer vision module * Deep learning modules such as LSTM for video * Implemented deep learning models for realtime data * Experience in Q-Learning and GAN’s * Experience in deploying models in real world environment * Experience in data augmentation for deep learning models * Experience in building concrete architecture for transfer learning * Experience in GPU computing and threads * Familiar with libraries such as Keras, pytorch, tensorflow and opencv |

Do you agree that Mitacs promotes the present opportunity on social medias? Yes / No

Once finalized, please upload the informnation contained in the present document here: <https://www.mitacs.ca/en/eform/submit/request-for-researcher>