

- Experimentation of solutions,
- Scientific report and publication.

Required skills

- Programming (Python, C++/C),
 - Familiarity with deep learning, machine learning,
 - Pytorch, Tensorflow,
 - Good knowledge of the fundamentals of statistics
 - Knowledge of image processing or computer vision, game theory, pedestrian interaction models will be appreciated.
- [1] Dendorfer, Patrick, Hamid RezaTofighi, Anton Milan, Javen Shi, Daniel Cremers, Ian Reid, Stefan Roth, Konrad Schindler, and Laura Leal-Taixe. "CVPR19 Tracking and Detection Challenge : How crowded can it get?." arXiv preprint arXiv :1906.04567 (2019).
 - [2] Chen, X., Duan, Y., Houthoof, R., Schulman, J., Sutskever, I., & Abbeel, P. (2016). Infogan : Interpretable representation learning by information maximizing generative adversarial nets. In Advances in neural information processing systems (pp. 2172-2180).
 - [3] Hu, P., Lipton, Z. C., Anandkumar, A., & Ramanan, D. (2018). Active Learning with Partial Feedback. arXiv preprint arXiv :1802.07427.
 - [4] Long, B., Bian, J., Chapelle, O., Zhang, Y., Inagaki, Y., & Chang, Y. (2014). Active learning for ranking through expected loss optimization. IEEE Transactions on Knowledge and Data Engineering, 27(5), 1180-1191.
 - [5] Gal, Y., & Ghahramani, Z. (2015). Dropout as a Bayesian approximation : Insights and applications. In Deep Learning Workshop, ICML (Vol. 1, p. 2).