Aditya Jitta

ML Developer, Selko.io

Education

2014–2020 **Ph.D., Computer Science**, *University of Helsinki*, Finland.

2012–2013 **M.Sc., Machine Learning**, *University College London*, London, UK.

2004–2008 **B.Tech Bioinformatics**, *VIT University*, Vellore, India.

Research Interests

Topics Statistical Machine Learning, Natural Language Processing, Bayesian Deep Learning, Deep Reinforcement Learning, Self-Driving Cars, Audio Signal Processing

Experience

2018–present **Machine Learning Developer**, *Selko Technology Oy*, Helsinki.
Building and Deploying NLP models to production

- Building, deploying and maintaining a multi-label text classifier for engineering requirements
- Working on pilot projects that include text classification, semantic search, text summarization and building knowledge graphs
- Building prototypes and tools, using the current state of the art models, to explore the value it adds to customers
- Built a single page application for Machine learning orchestration using FastAPI, FastAI, AWS Sagemaker, ReactJS

2014–2020 **PhD Researcher**, *University of Helsinki*, Helsinki.
Worked on my thesis on micro-clustering with Bayesian approach. The following are the papers I worked on:

- Partially Hidden Markov Models for Indoor Trajectories
- Probabilistic Size-constrained Microclustering
- Few-to-few Cross-domain Object Matching
- On Controlling the Size of Clusters in Probabilistic Clustering

Projects

self-driving Build a Traffic Sign Recognition *Tensorflow; Image Classification*

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self-driving	Behavioral Cloning to imitate driving	*Tensorflow; OpenCV*
self-driving	Advanced Lane Finding	*Video processing; OpenCV*
self-driving	Vehicle Detection and Tracking	*OpenCV; Object Detection*
Simulations	Mathematical modeling of beta cells calcium bursting model	*Python; Fortran*
Simulations	Validation of the tool that predicts aneurysms in brain	*Python; 3D Image Segmentation*
Bioinformatics	GUI for protein classification using SVM	*Python; Tkinter; SVM*
Bioinformatics	HSPDB: Heat Shock Protein Database	*MySQL; PHP; Javascript; CSS*

Teaching

- Teaching assistant for Advanced Course in Machine Learning, for 2016 and 2017
- Taught various machine learning topics in meetups and events

Skills

Programming	Python, Julia, R, C++, Javascript
Frameworks	PyTorch, Tensorflow, Keras
Database	MySQL
Front-end	ReactJS and CSS
Web Service	AWS, GCP
DevOps	Docker, Kubeflow

References

Provided upon request

Publications

[1] Aditya Jitta and Arto Klami. *Few-to-few cross-domain object matching*. In Proceedings of Advanced Methodologies for Bayesian Networks (PMLR), 73:186-187, 2017.

[2] Aditya Jitta and Arto Klami. *Partially hidden Markov models for privacy-preserving modeling of indoor trajectories*. Neurocomputing, 266:196-205, 2017.

[3] Aditya Jitta and Arto Klami. *On Controlling the Size of Clusters in Probabilistic Clustering*. 32nd AAAI Conference on Artificial Intelligence, to appear, 2018.

[4] Arto Klami and Aditya Jitta. *Probabilistic size-constrained microclustering*. In Proceedings of Uncertainty in Artificial Intelligence (UAI), 2016.

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