

## Jori van Lier

Location: Leiden, The Netherlands  
Nationality: Dutch  
Website: <http://jvlanalytics.nl>  
Email: [info@jvlanalytics.nl](mailto:info@jvlanalytics.nl)



All-round Data Scientist / Machine Learning Engineer that enjoys automating the world with Machine Learning and Artificial Intelligence.

Key traits:

- Nearly 10 years of professional experience.
- MSc in Computer Science.
- Substantial expertise in Deep Learning, especially Computer Vision.
- Strong Python engineering skills.
- Goal oriented: driven to move challenging projects forward when others get stuck or seem to lose interest.
- Able to effectively lead a team.

## Work experience

### **Oct 2017 – March 2020: Schiphol Airport – Senior Data Scientist a.i. (freelance)**

Data Science lead for the Deep Turnaround project: an initiative to detect events during the aircraft handling process with deep learning-based computer vision techniques. Built the initial prototype with object detection, Kalman filter tracking and Python-based event generation code. Spearheaded the transition to end-to-end learning with activity recognition convolutional neural nets.

Next to that, in a prior project, I prototyped a predictive model for departure delays to improve daily operations.

### **Oct 2016 – Sep 2017: KPMG Advisory – Senior Data Scientist**

Responsible for analytics at BlueSense, a start-up incubating within KPMG, that delivers insights into the behaviour of people within buildings, in real-time, using Wi-Fi sensors. I worked on algorithms to understand and predict crowd density, movement patterns, dwell times and occupancy levels. The system was active in retail, public transport, facility management and a football stadium.

### **Dec 2013 – Sep 2016: KPMG Advisory – Data Engineer / Data Scientist**

Part of a group of big data experts, with a mission to disrupt traditional industries with novel data-driven approaches. As one of the pioneers in the big data space, we brought Machine Learning, simulations and statistics to traditional organizations. I prototyped various predictive models for clients and helped develop a real-time Location Analytics platform (which later evolved into BlueSense).

### 2010 – 2013: KPMG Advisory – Consultant IT Advisory

Various business intelligence and data quality projects.

## Education

### 2008 – 2010: Leiden University – MSc Computer Science

Emphasis on artificial intelligence algorithms (neural networks, evolutionary algorithms, genetic programming, swarm intelligence). Graduated cum laude on a genetic programming application.

### 2004 – 2008: Leiden University – BSc Computer Science

#### Courses

Deep Learning Specialization, deeplearning.ai on Coursera, 2017 – 2018.

Management Development, KPMG, 2017.

Calculus Two, Ohio State University on Coursera, 2017.

3-day advanced statistics course, Nikhef (the Dutch institute for subatomic physics), 2016.

Calculus One, Ohio State University on Coursera, 2016.

Machine Learning, Stanford University on Coursera, 2014.

Statistics, Duke University on Coursera, 2014.

## Skills and Competences

**Languages:** Dutch (native), English (fluent).

**Programming languages:** Python (expert), Java (intermediate), JavaScript and C++ (basic).

**Python:** Jupyter, NumPy, pandas, matplotlib, seaborn, scikit-learn, XGBoost, SciPy, Flask, TensorFlow, Keras, OpenCV, PyMC3, flake8, pytest, LIME, SHAP.

**Big Data:** Spark, Hadoop, Hive, HDFS, Databricks, Storm, Kafka, Airflow.

**Databases:** SQL in various dialects; mainly MySQL, PostgreSQL and Hive. NoSQL: MongoDB.

**Dev tooling:** Git, Jenkins, Docker, Vagrant.

**Linux:** Proficient with Ubuntu, CentOS, vim, heavy command line user, zsh, Bash scripting.

**Machine Learning:** Highly proficient in ML & DL. Expert in CNNs, 2D and 3D, classification and object detection, action recognition, multi-task. MLFlow.

**Statistics:** Familiar with both frequentist and Bayesian methods.

**Cloud:** Used GCP, AWS and Azure to varying degrees.