Ruben **Broekx**

Machine Learning Engineer · Data Scientist · Consultant

Boemerangstraat 21, 3900 Pelt, Belgium

(+32) 493 03 48 68 | broekxruben@gmail.com | rubenpants.github.io | rubenbroekx | RubenPants | Dutch, English

Data Mining – NLP – Computer Vision – Neuroevolution – SciPy – Scikit-Learn – Tensorflow – PyTorch – FastAPI – Vue – AWS – Git – Docker

Summary

I am a Machine Learning Engineer by profession and an Artificial Intelligence enthusiast by passion. Using my analytical skills, outside of the box thinking, and personal drive, I aim to realize the Machine Learning projects given to me quick and properly. Over the past few years, I came into contact with various business use cases, types of data to work with, and corresponding Machine Learning solutions. This journey gave me the opportunity to work for numerous types of clients, which introduced me to different types of professions and industries. I strive to expand on this horizon, and aim to apply my knowledge to those who would benefit from this the most.

Education

University of Leuven
Leuven, Belgium

Master in Computer Science - Artificial Intelligence - Magna Cum Laude
Sep. 2018 - June 2020

- Thesis subject: *"An Empirical Investigation of Using Gated Recurrent Units in Evolved Robotic Controllers".*

University of Leuven
Leuven, Belgium

Bachelor in Computer Science and Electrical Engineering - Cum Laude
Sep. 2015 - Aug. 2018

- Thesis subject: *"Virtual Multi-Agent Drone Delivery System".*

Experience

Radix
Brussels, Belgium

Machine Learning Engineer - Consultant
August 2020 - PRESENT

- Detection and analysis of agricultural parcels, including but not limited to tillage detection and crop health monitoring.
- AI-assisted email analysis, classification, and answering system to aid contact center employees.
- Language agnostic vacancy parsing system to extract and categorise sentences into predefined classes of interest.
- Language agnostic resume parsing system to extract the applicant's information such as education, experience, skills, and others.
- Sentiment analysis *Deep Learning* model to monitor the well-being of the Flemish population using Twitter data.
- News article ranking system to rank news articles over a requested time period based on a specified financial factor.

Contact: Davio Larnout – davio@radix.ai

Nokia Bell Labs
Antwerp, Belgium

Research Intern
July 2019 - Sep. 2019

- Developed a code summarization artificial neural network that predicts a short natural language description for a given Python code snippet, with the assistance of a highly skilled team of researchers.
- Built a Keras based framework to efficiently process data and train/evaluate different types of models.

Contact: Tom Van Cutsem – tom.van_cutsem@nokia-bell-labs.com

University of Leuven
Leuven, Belgium

Teaching assistant to the bachelor's thesis
Sep. 2018 - June 2019

- Assisted the students of Computer Science with their Bachelor's thesis.
- Helped guiding a TensorFlow-based face recognition mobile application.

SoundTalks NV
Leuven, Belgium

Back end developer - Student job
Aug. 2018 - Sep. 2018

- Developed the back end for their product website using Python and the Django REST framework.
- Tripled server query response time by restructuring the code and modifying the queries.
- Worked in a Scrum environment.

Contact: Dries Berckmans – dries.berckmans@soundtalks.com

Extracurricular

Personal side-projects

- Wrapper around the ConceptNet Number Batch word embedding library to improve inference performance. [GitHub]
- Semi-supervised clustering algorithm to cluster context-less language embeddings. [GitHub]
- Illustrative repository to show both the potential and usage of Blender to generate data for Deep Learning projects. [GitHub]
- Evolving Recurrent Neural Networks via the NeuroEvolution of Augmenting Topologies (NEAT) algorithm. [GitHub]
- Transforming regular text to a poem (limerick) via the means of a Transformer Deep Learning model [GitHub]
- Created a Transfer Learning tutorial in Keras on the MNIST dataset. [GitHub]
- Gained a deeper insight in Python by creating a bot that plays chess using the minimax-algorithm with alpha-beta pruning. [GitHub]