SVEN DEGROEVE

sven.degroeve@gmail.com
+32 (0)485 02 91 36
2018 Antwerpen
27-02-1977
linkedin.com/in/svendegroeve
github.com/sdgroeve
kaggle.com/svendegroeve

PROFESSIONAL CAREER

Staff Data Scientist
Mar 2017 – Apr 2025 | VIB-UGent Center for Medical Biotechnology, Zwijnaarde Technology Park

- Team lead of AI (machine learning and deep learning) engineers/researchers
- Development and maintenance of open-source biotechnology data analysis software
- Tools used: PyTorch, Tensorflow, MLOps with Weights&Biases, CI with Github Actions, Nextflow
- Commercialisation of open-source tools towards international companies (e.g. Bruker Corporation)
- Consulting research groups at VIB and UGent Hospital about the application of AI
- Senior lecturer of AI and machine learning at UGent (Associate Professor (10%))
- Member of the Educational Committee for Biomedical Sciences, IT Committee, and Health Intelligence Network Ghent (HINT.GENT)

Machine Learning Researcher
Jul 2009 – Feb 2017 | VIB-UGhent Medical Biotechnology Center, Ghent

- Team lead of AI (machine learning) engineers/researchers
- Development and maintenance of open-source biotechnology data analysis software
- Tools used: Scikit-learn, XGBoost, Nextflow, Airflow
- Lecturer of several machine learning courses and workshops

Senior Knowledge Systems Engineer
Oct 2008 – Mar 2009 | MDCPartners, Antwerp

- Java implementation of machine learning models for clinical trial optimization and medical expert identification

Data Scientist
Oct 2005 – Aug 2008 | Pronota, Zwijnaarde Technology Park

- Responsible for experimental design and statistical data analysis (R, Python, Spotfire)
- Communication of key issues affecting biomarker discovery and data quality

Post-doctoral Fellow

Jan 2005- Sep 2005 | KERMIT, Ghent University

- Machine learning model development (kernel support vector machines, C code) for the annotation of drums and snares in raw audio signals (early WAV to MIDI conversion).

PhD

Jan 2001 –Dec 2004 | Ghent University, Flemish Institute for Biotechnology (VIB)

Machine Learning Researcher

Jan 2001 – Dec 2001 | Tibotec-Virco, Mechelen

Machine Learning Research Assistant

Sep 1999 – Dec 2000 | Centre for Evolutionary Language Engineering (CELE), L&H, Ieper

EDUCATION

Doctorate (Ph.D.) in Sciences: Computer Science

Ghent University | 2001 – 2004

Title of thesis: "Design and evaluation of a linear classification strategy for gene structural element recognition"

Licentiate (Master in Sciences) in Information Technology

Ghent University | 1997 - 1999

Title of thesis: "Classification of skin lesions with neural networks"

TECHINCAL SKILLS

Expert

Programming: Python, Pandas, Visual Studio Code

Data exploration: Seaborn, Plotly, Tableau Software

Machine Learning: Scikit-learn, Auto-sklearn, Scikit-multilearn, Hyperopt, Kaggle

Deep Learning: PyTorch (Lightning), Tensorflow (Keras)

MLOps: Weights&Biases

CI/CD: GitHub Actions, Nextflow, Airflow, Docker

Intermediate

Programming: C, Java, Cython, R, javascript

Deep Learning: HuggingFace API, torchvision

Generative AI: LangChain, LangGraph, Flowise

Cloud: Google Compute Engine (Vertex AI), Kubernetes

Other: Flask, Streamlit

SOFT SKILLS

- Analytical thinker and problem solver
- Team player and hands-on leader
- Coach and talent developer
- Collaborator
- Skilled communicator with a passion for AI, e.g. current courses:

  Machine Learning methods for Biomedical Data (D012554)
  Ghent University | yearly since 2016 | 55 hours
  GitHub: https://github.com/sdgroeve/Machine_Learning_course_UGent_D012554_2025
  Large scale analysis of Biomedical Data (D013628)
  Ghent University | yearly since 2015 | 10 hours
  Machine Learning & Deep Learning Workshop
  Flemish Institute for Biotechnology (VIB) | twice a year since 2018 | 32 hours
  Link: https://training.vib.be/all-trainings/machine-learning-deep-learning-workshop

LANGUAGES

Dutch (native proficiency), **English** (advanced C1 level), **French** (intermediate proficiency)

SCIENTIFIC PUBLICATIONS

Google Scholar: https://scholar.google.nl/citations?user=pzwt3NYAAAAJ&hl=en
UGent Biblio: https://biblio.ugent.be/publication?text=sven+degroeve

CERTIFICATES

Neural Networks and Deep Learning (Coursera)
Structuring Machine Learning Projects (Coursera)
Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
(Coursera)
Introduction to AI and Machine Learning on Google Cloud (Coursera)
LangChain: Application Development Essentials (Coursera)
CEFR level C1 on the Interuniversity Test of Academic English, issued Sep 2019

REFERENCES

Prof. Dr. Kris Gevaert
Principal Investigator and Science Director
VIB-UGent Center for Medical Biotechnology
Technologiepark-Zwijnaarde 75 - 9052 Gent – Belgium
Email: Kris.Gevaert@vib-ugent.be
Tel: +32 (0)9 224 98 35
Linkedin: https://www.linkedin.com/in/kris-gevaert-62015a9/

Prof. Dr. Nico Callewaert
Group leader and Associate Director Biomedical Innovation
VIB-UGent Center for Medical Biotechnology
Technologiepark-Zwijnaarde 75 - 9052 Gent – Belgium
Email: Nico.Callewaert@vib-ugent.be
Tel: +32 (0)9 224 9807
Linkedin: https://www.linkedin.com/in/nicocallewaert/

Dr. Koen Kas
Healthcare futurist
https://koenkas.com/
Email: Koen@healthskouts.com
Tel: +32 (0)479 41 99 62
Linkedin: https://www.linkedin.com/in/koenkas/