

## Curriculum vitae

**Clemens Spielvogel, MSc.**

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### Education

**PhD studies;** Medical University of Vienna Since Feb 2019  
**Master studies Bioinformatics;** University of Applied Sciences Vienna Sep 2016 – Jun 2018  
**Bachelor studies Biomedicine and Biotechnology;** University of Veterinary Medicine Vienna Oct 2013 – Aug 2016

### Training

**PhD in imaging data analysis** – Application of predictive modeling using machine learning for tumor characterization based on imaging, genetic and other highly heterogeneous data sources; Medical University of Vienna Since Feb 2019  
**Machine learning engineer** – Development of and applied research with an end-to-end image-based feature extraction and machine learning software; Medical University of Vienna Jul 2018 – Jan 2019  
**Master's degree work** – Machine learning based tumor characterization using medical imaging; Medical University of Vienna Dec 2017 – Jun 2018  
**Software consulting** and **data analysis** of mass spectrometry data; University of Graz Oct 2016 – Dec 2016  
**Bachelor's degree work** and project work; Vet. Med. Uni. Vienna; Aug 2015 – Aug 2016  
**Various internships** at Medical University of Vienna and Vet. Med. Uni. Vienna Nov 2013 – Sep 2014

### Social

**Lecturer** at University of Applied Sciences Technikum Wien for the study program Computer Science Since Sep 2019  
**Community services** for Bachelor class; Vet. Med. Uni. Vienna Oct 2013 – Aug 2016  
**Lecture assistant** at anthropology course; University of Vienna Feb 2016 – Jun 2016  
**Lecture assistant** at molecular biology course; Vet. Med. Uni. Vienna Oct 2014, Oct 2015



## Skills

Data analysis with Python	Expert
Software development and scientific programming with Python	Advanced
Machine learning frameworks (Tensorflow, Keras, Scikit-Learn, Weka)	Advanced
Data Visualization in Python and R (matplotlib, seaborn, plotly, ggplot2, etc.)	Advanced
Working with Linux-based operating systems	Advanced
Biomedical databases	Advanced
Software Development in C++	Basic
Bash scripting, SQL	Basic



## Publications

Breast Tumor Characterization using [18F]FDG-PET/CT Imaging Combined with Data Preprocessing and Radiomics. D. Krajnc, L. Papp, T. S. Nakuz, H. F. Magometschnigg, M. Grahovac, C. P. Spielvogel, B. Ecsedi, Z. Bago-Horvath, A. Haug, G. Karanikas, T. Beyer, M. Hacker, T. H. Helbich, K. Pinker; Cancers	Mar 2021
Transcription factors CP2 and YY1 as prognostic markers in head and neck squamous cell carcinoma: analysis of The Cancer Genome Atlas and a second independent cohort. J. Schnöll, B. Jank, L. Kadletz, S. Stoiber, C. P. Spielvogel, E. Gurnhofer, L. Kenner, G. Heiduschka; Journal of Cancer Research and Clinical Oncology	Mar 2021
Supervised machine learning enables non-invasive lesion characterization in primary prostate cancer with [Ga]Ga-PSMA-11 PET/MRI. L. Papp, C. P. Spielvogel, [...] and Marcus Hacker; European Journal of Nuclear Medicine and Molecular Imaging	Dec 2020
Personalizing Medicine Through Hybrid Imaging and Medical Big Data Analysis. L. Papp, C. P. Spielvogel, I. Rausch, M. Hacker and T. Beyer; Frontiers in Physics	Jun 2018