

Curriculum Vitae

Education

Since 2014/05

PhD at Alfred Wegener Institute – Helmholtz Centre for Polar and Marine Research, Potsdam, Germany and Universität Potsdam, Germany

Topic: Rapid Permafrost thaw dynamics – Remote sensing and modeling of landscape dynamics

2009/10 – 2012/05

M.Sc. at Universität Potsdam, Germany

Topic: Geoinformation und Visualisierung (Geoinformation and Visualisation)

Thesis topic: Comparison of supervised machine learning algorithms for crop type classification on optical remote sensing data.

2005/10 – 2009/05

B.Sc. at Freie Universität Berlin, Germany

Topic: Geographische Wissenschaften (Geographical sciences)

Thesis Topic: Reconstruction of glacial melting processes in the southern Parstein Basin based on a Digital Elevation Model

Professional Experience

Since 2014/05

Alfred Wegener Institute – Helmholtz Centre for Polar and Marine Research, Potsdam, Germany – PhD Candidate

PETA-CARB Project – Rapid Permafrost Thaw in a Warming Arctic and Impacts on Soil Organic Carbon Pool

Responsibilities:

- Remote sensing based detection of Thermokarst lake shore dynamics
- Detection and Modelling of Thermokarst processes and dynamics
- Data Processing

2012/05 – 2014/05

University College Cork, Ireland – Research Assistant

ILMO Project - Irish Land Mapping Observatory

Responsibilities:

- Detection of different Grassland and Grassland-management types with hyper-temporal optical data for carbon budget accounting
- Workflow definition and programming
- Processing of high-volume remote sensing time-series
- Time-series analysis
- LULC classification with novel machine learning techniques
- LULC change detection
- Scientific presentation and publication (Conferences, Reports)

2009/05 – 2011/11

**Rapideye AG/Blackbridge, Brandenburg, Germany –
Student Assistant, Product Development**

Responsibilities:

- Workflow definition and development for Precision agriculture products
- Customer support/interaction
- Image and product quality assessment
- Data management
- Technical and Scientific team support

2009/03 – 2009/04

Rapideye AG – Internship

Responsibilities:

- Image Quality assessment
- Workflow definition and development for precision agriculture products

2008/02 – 2008/09

**Freie Universität Berlin –
Scientific Assitant**

Responsibilities:

- Preprocessing of remote sensing data (optical + DEM)
- Processing DGPS data for hydrological modeling

Skills

Geospatial

Advanced experience in processing of remote sensing data and time-series analysis

Proficient in different RS-Software such as GDAL/OGR, ERDAS Imagine, PCI Geomatica, ENVI

Expertise in machine-learning techniques for classification and regression

Expert knowledge in geo-data management and GIS packages such as ArcGIS, QGIS, OpenJump

Basic knowledge of Web-mapping applications (OpenLayers, Geoserver)

IT

Advanced experience in Python with numerous libraries

- numpy
- scipy
- scikits-learn
- gdal/ogr
- matplotlib
- active contribution to pyMODIS

Language skills

Experienced in Linux Systems and Shell scripting

Working experience in databases and SQL (Postgres/PostGIS)

Working experience in other software such as MATLAB, WEKA, MS Office

German: native language

English: fluent

French: good knowledge

Spanish: good knowledge

Dutch: moderate knowledge

Memberships

RSPSoc – Remote Sensing & Photogrammetry Society (UK)

POLMAR – Helmholtz Graduate School for Polar and Marine Research

Other

Driving License Type B

Boat Driving License (Interior Waters and Open Sea)

Diving License (Advanced Open Water)

Chainsaw License