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## **SUMMARY OF QUALIFICATIONS**

- PhD from the Albert-Ludwigs University in Freiburg, Germany (ranks 100-150 for top universities globally)
- Fluent in most coding languages, developer of efficient code
- More than 8 years of experience in software development and GIS
- Background in Bayesian and probabilistic statistics
- Spatial stochastic and deterministic biogeochemical simulation models
- Experienced in public speaking at international conferences and workshops
- Excellent communication, teamwork and problem solving skills
- Proficient in written and spoken English, German and Dutch
- Hard-working
- Authorized to work in the USA

## **SOFTWARE EXPERTISE**

- |                 |               |                           |
|-----------------|---------------|---------------------------|
| • C#            | • Python      | • GIMP                    |
| • C++           | • R           | • FireBird                |
| • Visual Basic  | • Matlab      | • SQL                     |
| • HTML5         | • TortoiseSVN | • Microsoft Office family |
| • CSS           | • SPSS        |                           |
| • JavaScript    | • Inno Setup  |                           |
| • Visual Studio | • ArcGIS      |                           |

## **SOFTWARE TECHNIQUES**

- Data manipulation and performance bottlenecks
- Multi-threading/Background worker in Visual Studio 2010
- Developer of efficient code
- Embedding COM components in Visual Studio 2010 (i.e. MapWinGis ActiveX API)
- Application Extension (i.e. ARCGIS plugin)

## **PROFESSIONAL EXPERIENCE**

### **SELF EMPLOYED (Harvard Forest)**

**September 2015- present**

#### **Research associate**

• I have been working with the United States Forest Service since 2011 (i.e. during my Post-Doctoral assignment at Purdue University). I received funding from USFS to finish up on some of my work after my contract at Purdue ended in September 2015. This contract will be executed concurrently with my work for Harvard Forest (i.e. see next entry).

### **SELF EMPLOYED (USDA Forest Service)**

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**PURDUE UNIVERSITY - West Lafayette, IN**

**2011- 2015**

**Post-doctoral Fellow**

*Purdue University, posted at USDA Forest Service Northern Research Station, Rhinelander, WI*

• Developed a new spatially explicit simulation model, “PnET-Succession”, with user interface to simulate growth and spread of tree species and associated forest carbon sequestration.

**AGROSCOPE RECKENHOLZ TAENIKON – Zürich, Switzerland**

**2010-2011**

**Post-doctoral Fellow**

*Agroscope Reckenholz-Tänikon Research Station, Zürich, Switzerland*

• Simulated biomass and carbon dynamics in lowland grasslands in Switzerland.

**ALTERRA B.V. – Wageningen, Netherlands**

**2009-2010**

Alterra B.V. is a research station specializing in animal population dynamics, agriculture, and sustainability with close ties to my alma mater, Wageningen University.

**Software developer**

*Alterra B.V. Research Institute, Wageningen, Netherlands*

Developed GIS applications for spatial ecological models on dispersal patterns of plants and animal species in fragmented habitat according to metapopulation theory.

- Improved the Landscape ecological Analysis and Rules for the Configuration of Habitat (LARCH) model user interface which is a plug-in for ArcMap to analyse population viability given fragmented habitat.
- Expanded functionality of the metapopulation simulation model (METAPHOR) interface which operates as a standalone Windows program that uses GIS freeware to embed GIS capabilities into the program interface.

**IMK-IFU - Garmisch-Partenkirchen, Germany**

**2006-2009**

IMK-IFU is an internationally reclaimed research institute, with ties to several universities in Germany, amongst which the Albert-Ludwigs University in Freiburg im Breisgau, Germany where I obtained my PhD.

**Research Assistant**

**2006-2009**

• As part of EU’s NitroEurope research project on nitrogen cycling, developed a model subroutine *DECONIT* that was published as an isolated program and later embedded in a larger modelling platform MoBiLE.

**EDUCATION**

**ALBERT LUDWIGS UNIVERSITY – Freiburg im Breisgau, Germany**

**2006-2009**

**PhD in Forest and Environmental Sciences, *magna cum laude*.**

**WAGENINGEN UNIVERSITY – Wageningen, Netherlands**

**1998-2005**

**M.S. in Forestry and Environmental Sciences.**

• Master’s thesis on modelling decomposition kinetics published in Soil Biology and Biochemistry.

**AMSTERDAM UNIVERSITY– Amsterdam, Netherlands**

**2001-2005**

**M.A. in Philosophy of Environmental Science.**

• Master’s thesis on the relationship between environmental science and public perception of environmental issues.