**Arjan de Bruijn**

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**SUMMARY OF QUALIFICATIONS**

• Fluent in most coding languages

• More than 8 years of experience in software development and GIS

• Developer of efficient code

• Hard-working

• Authorized to work in the USA

• 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

• Proven initiative in new approaches to forest demographic models

• Proficient in written and spoken English, German and Dutch

**SOFTWARE EXPERTISE**

• C#

• C++

• Visual Basic

• HTML5

• CSS

• JavaScript

• Visual Studio

• Python

• R

• Matlab

• TortoiseSVN

• SPSS

• Inno Setup

• ArcGIS

• GIMP

• FireBird

• SQL

• Microsoft Office family

**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**

**PURDUE UNIVERSITY - West Lafayette, IN 2011- present**

**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.