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
- Embedding COM components in Visual Studio 2010 (i.e. MapWinGis ActiveX API)
- .NET
- 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**
ART tapped me for a short-term assignment because of my PhD research supported by the NitroEurope project in which my previous employers, ALTERRA B.V. and IMK-IFU, collaborated.

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.