**SUMMARY OF QUALIFICATIONS**

• More than 8 years of experience in computer simulations, programming and GIS

• Fluent in most coding languages

• Hard-working

• Experience in agile scrum methodology

• Authorized to work for any employer in the USA

**PROGRAMMING LANGUAGES & SOFTWARE**

• Visual Studio

• C++

• C#

• Visual Basic

• HTML5

• CSS

• JavaScript

• SQL

• MS SQL Server

• ORACLE

• ArcGIS

• ArcObjects

• Python

• Inno Setup

• R

• FireBird

• TortoiseSVN

• Matlab

• SPSS

**PROFESSIONAL EXPERIENCE**

**NEW CENTURY SOFTWARE – Fort Collins, CO October 2015 – present**

**Software developer**

• Developed GIS solutions for the oil and gas industry using C#, ArcGIS and Microsoft SQL Server.

**HARVARD FOREST & USDA FOREST SERVICE – Fort Collins, CO September 2015- March 2016**

**Contractor**

• Added additional features to the model “PnET-Succession” (see next entry).

**PURDUE UNIVERSITY - West Lafayette, IN 2011-2015**

**Post-doctoral Fellow**

*Posted at USDA Forest Service Northern Research Station, Rhinelander, WI and Rocky Mountain Research Station, Fort Collins, CO*

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

**AGROSCOPE RECKENHOLZ TAENIKON – Zürich, Switzerland 2010-2011**

**Post-doctoral Fellow**

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

**ALTERRA B.V. – Wageningen, Netherlands 2009-2010**

**Software developer**

• Developed GIS applications for spatial ecological models on dispersal patterns of plants and animal species in fragmented habitat.

• 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**

**Research Assistant**

• 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 modeling platform MoBiLE.

**EDUCATION**

**ALBERT LUDWIGS UNIVERSITY OF FREIBURG**– Freiburg im Breisgau, Germany **2006-2009**

**PhD in Forest and Environmental Sciences,** with computer simulations emphasis, *magna cum laude*.

**WAGENINGEN UNIVERSITY –** Wageningen, Netherlands **1998-2005**

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

**AMSTERDAM UNIVERSITY–** Amsterdam, Netherlands **2001-2005**

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

**PUBLICATIONS**

* Arjan M. G. de Bruijn · Eric J. Gustafson · Daniel M. Kashian · Harmony J. Dalgleish · Brian R. Sturtevant · Douglass F. Jacobs. Decomposition rates of American chestnut (Castanea dentata) wood and implications for coarse woody debris pools (2014) Canadian Journal of Forest Research 44(12): 1575-1585
* Eric J. Gustafson · Arjan M.G. De Bruijn · Robert E. Pangle · Jean‐Marc Limousin · Nate G. McDowell · William T. Pockman · Brian R. Sturtevant · Jordan D. Muss · Mark E. Kubiske (2014) Integrating ecophysiology and forest landscape models to improve projections of drought effects under climate change. Global Change Biology 287: 44-57.
* Arjan M. G. de Bruijn · Eric J. Gustafson · Brian R. Sturtevant · Jane R. Foster · Brian R. Miranda · Nathanael I. Lichti · Douglass F. Jacobs (2014). Toward more robust projections of forest landscape dynamics under novel environmental conditions: Embedding PnET within LANDIS-II. Ecological Modelling 287:44–57.
* A. M. G. De Bruijn · P. Calanca · C. Ammann · J. Fuhrer (2012) Differential long-term effects of climate change and management on stocks and distribution of soil organic carbon in productive grasslands. Biogeosciences 9(6): 1055-1096.
* Arjan M. G. de Bruijn · Rüdiger Grote · Klaus Butterbach-Bahl (2011). An alternative modelling approach to predict emissions of N2O and NO from forest soils. European Journal of Forest Reseach 130(5): 755-773.
* Arjan M. G. de Bruijn, Klaus Butterbach-Bahl (2010). Linking carbon and nitrogen mineralization with microbial responses to substrate availability — the DECONIT model. Plant and Soil 328(1): 271-290
* A.M.G. de Bruijn, K. Butterbach-Bahl, S. Blagodatsky, R. Grote (2009). Model evaluation of different mechanisms driving freeze–thaw N2O emissions. Agriculture, Ecosystems & Environment 133(3-4): 196–207
* W. G. Braakhekke · Arjan M. G. de Bruijn (2006) Modelling decomposition of standard plant material along an altitudinal gradient: A re-analysis of data of Coûteaux et al. (2002). Soil Biology and Biochemistry 39(1): 99-105