GIANLUCA BOO

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NATIONALITY Swiss, Italian

ABOUT

I apply my research skills in the fields of **spatial analysis** and **statistical modeling** to tackle relevant societal issues. During my career, I focused on the mapping and estimation of geographic phenomena in the domains of **epidemiology**, **demography**, and **urban planning**. As part of the GRID3 project, I recently produced model-based population estimates for five provinces of the **Democratic Republic of Congo** to support **public health intervention**.

EMPLOYMENT

Research Fellow | spatial demography [April 2018 – Present]
World Pop, University of Southampton, United Kingdom

Research and Teaching Assistant | spatial epidemiology [January 2014 – March 2018]
Department of Geography, University of Zurich, Switzerland

Geoinformatician | urban planning [February 2011 – December 2013]
Planning and Construction Office of Canton Fribourg, Switzerland

GIS Manager | urban planning [January 2010 – August 2010]
International Peace and Cooperation Centre Jerusalem, Israel/Palestine

Human Rights Observer | humanitarian [July 2009 – November 2009]
Peace Watch Switzerland, Jerusalem, Israel/Palestine

Substitute Teacher | mathematics and geography [May 2007 – June 2009]
Several secondary schools in Canton Ticino, Switzerland

Urban Planning Intern | urban planning [December 2006 – April 2007]
Department of Territory of Canton Ticino, Switzerland

EDUCATION

PhD in Geography | GIScience [July 2018]
Department of Geography, University of Zurich, Switzerland

Postgraduate Certificate | GIScience [February 2013]
SPINLab, VU University Amsterdam, The Netherlands

Master of Science in Geography | urban studies [June 2009]
Department of Geography, University of Lausanne, Switzerland

Bachelor of Science in Geography | human geography [June 2006]
Department of Geography, University of Lausanne, Switzerland

TRAINING

Open GeoHub summer school – spatial and spatiotemporal computing [September 2019]
Department of Geoinformatics, University of Münster, Germany

Spatial and spatio-temporal Bayesian models with R-INLA [September 2019]
School of Public Health, Imperial College London, United Kingdom

Modeling spatial and spatio-temporal areal unit data in R with CARBayes [September 2017]
Instituto de Investigação e Inovação em Saúde, Universidade do Porto, Portugal

Machine learning methods for spatial and temporal analysis [September 2016]
SpaceTime Lab for Big Data Analytics, University College London, United Kingdom

Bayesian modelling and computation [September 2016]
Department of Statistics, University of Southampton, United Kingdom

Project management for research [March 2015]
Graduate School in Geography, University of Zurich, Switzerland

SKILLS

PERSONAL Innovative, independent, interdisciplinary, and organized

METHODS Scientific research [academic writing, oral and poster presentations, and academic teaching], spatial analysis [mapping, cluster analysis, spatial interpolation, and spatial regression], statistical analysis [descriptive statistics, statistical modeling – frequentist and Bayesian, and power tests], and machine learning [clustering, cross-validation, and decision trees]

SOFTWARE Geographic information systems [ArcGIS, QGIS], (spatial-)data analysis [RStudio – Markdown, and Shiny], graphic design [Adobe Design Suite], and general [Microsoft Office, and Google Suite]

CODING R [interactive visualizations, data management, spatial, analysis, and statistical modeling], Python [geographic information systems], HTML and CSS [web design], and JavaScript [web mapping]

LANGUAGE Italian [mother tongue], English [full working proficiency], French [full working proficiency], German [limited working proficiency], and Spanish [beginner]

SELCTED PUBLICATIONS

Thomson DR, Kuffer M, **Boo G**, Hati B, Grippa T, Elsey H, Linard C, Mahabir R, Kyobutungi C, Mwaniki D, Ndugwa, Makau J et al. *Proposing an integrated approach to neighbourhood deprivation mapping in LMICs*. Wellcome Open Research [UNDER REVIEW]

Paternoster G, **Boo G**, Wang C, Minbaeva G, Usubalieva J, Raimkulov KM, Zhoroev A, Abdykerimov KK, Kronenberg PA, Müllhaupt B, Furrer R, Deplazes P, and Torgerson PR. *Epidemic echinococcosis in Kyrgyzstan – high-resolution maps using national surveillance data identify disease hotspots*. The Lancet Global Health [UNDER REVIEW]

Boo G, Leyk S, Fabrikant SI, Graf R, and Pospishil A. 2019. *Assessing uncertainty in canine cancer data sources through dasymetric refinement*. Frontiers in Veterinary Science. 6:45

Boo G, Leyk S, Brunsdon C, Graf R, Pospishil A, and Fabrikant SI. 2018. *The importance of regional models in assessing canine cancer incidences in Switzerland*. PLOS One. 13(4)

Boo G, Leyk S, Fabrikant SI, Pospishil A, and Graf R. 2017. *Assessing effects of structural zeros on models of canine cancer incidence: a case study of the Swiss Canine Cancer Registry*. Geospatial Health. 12(1):121–129

REFERENCES

Upon request.