

JP Glutting, MPH, MSc

Public Health - GIS - Bioinformatics

jpglutting@gmail.com * 617-410-8698 * <http://www.jpglutting.com>

Summary

Public Health expert and experienced programmer with MPH, and MSc in GIS. Delivered computational tool for analyzing MHC binding potentials across whole proteins or proteomes at the DFCI, including multiple upgrades to respond to new and complex lines of immunological research. Created first MCE plug-in tool for QGIS project. Initiated automated evaluation for teaching faculty at the University of Lleida, and developed and maintained final working code.

Excellent written and verbal communication skills in English, Catalan and Spanish. Ran successful medical translation consulting business for 15 years, with translations published in The Lancet, Chest, NEJM, etc. Experience in project management and working with collaborative, multi-disciplinary teams.

Objective

Seeking challenging position in analytical programming, working with multi-disciplinary teams in epidemiology, bioinformatics and related fields.

Skills

Programming languages: **Python** (and Biopython) (18 years), **GIS** (PostGIS, ArcGIS, IDRISI, QGIS - including APIs) (5 years), **Database Management** (Oracle, PostgreSQL, MySQL) (11 years), **R** (statistical analysis of spatial and epidemiological data) (2 years).

Languages: Fluent in English, Spanish, and Catalan.

Experience

Senior Analyst, AIR Worldwide — 2013-Present

Development of Industries Exposures Databases (IED) for countries in all regions of the world. IED's are specialized spatial databases built by analyzing and synthesizing multiple and varied data streams. Development of software tools for quality control and spatial data analysis as part of AIR Worldwide's catastrophic risk modeling research program. *Python, ArcGIS, MS SQL Server, Spatial SQL.*

Senior Research Associate, BMEISIS, Lleida, Spain — 2010-2012

Business development and Python programming for bioinformatics and spatial epidemiology start-up. *Python, Biopython, PostGIS, R, ArcGIS, QGIS, IDRISI.*

Epidemiologic Analysis, Vrije Universiteit, Amsterdam — 2011

Master's thesis project was an epidemiological study of the effect of micro-urban heat islands (MUHI) on mortality, using satellite remote thermal infrared sensing, weather station readings and a mortality registry for the city of Barcelona. *PostGIS 2.0, R and Python.*

Data Analyst, Quality Office, Universitat de Lleida, Spain — 2004-2010

Technical lead in the team that recreated the current quality evaluation systems for the University of Lleida, including extraction and analysis of key data for assessment of degree programs and teaching evaluations. *Oracle, PostgreSQL, Python.*

Author and Maintainer, MCElite GIS plug-in — Present

MCElite is a plug-in for QGIS and ArcGIS that allows the user to do several types of multi-criteria evaluation (Boolean Overlay, Weighted Linear Combination, Ordered Weighted Averaging). On GitHub (<https://github.com/jpglutting/MCElite>). *Python, QGIS, ArcGIS, Git.*

JP Glutting, MPH, MSc

Public Health - GIS - Bioinformatics

jzglutting@gmail.com * 617-410-8698 * <http://www.jzglutting.com>

Senior Bioinformatics Programmer, Dana-Farber Cancer Institute, Boston — 2001-2003

Bioinformatics programming in Pedro Reche's team at the Reinherz Laboratory and Molecular Immunology Foundation, including working on Rankpep and related programs (mrankpep grankpep). Tool development for computational vaccinology (PEPVAC). Ongoing development of the Rankpep constellation of programs (mrankpep, grankpep) for MHC I and II binding predictions. Web interface development for online access to bioinformatics tools. *Python, Biopython, PostgreSQL*.

Analyst, AIDS Bureau, Massachusetts Department of Public Health, Boston — 2001

Programming support for Annual Epidemiological Profile of HIV/AIDS in Massachusetts. *Python*.

Coordinator, Iberoamerican Cochrane Center, Barcelona, Spain — 1996-2000

Various responsibilities, including: Coordination of the Iberoamerican Cochrane Centre, Cochrane Lung Cancer Review Group and clinical trials data management. Web and online course development using Zope CMS. *Python, Zope*.

Education

Vrije Universiteit, Amsterdam, The Netherlands - **Master in Geographical Information Science**, 2011
Graduated with Distinction.

University of Massachusetts, Amherst, Massachusetts - **Master of Public Health**, 1995

University of Massachusetts, Amherst, Massachusetts - **BA in Physical Anthropology**, 1992

Awards

Master's thesis, "*Excess heat-related mortality in micro-urban heat islands: A case-only study in Barcelona*", was awarded second prize in the 2012 UNIGIS International Association Academic Excellence Awards in Salzburg, Austria.

Selected Publications

Glutting JP, **Excess Heat-Related Mortality in Micro-Urban Heat Islands: A Case-Only Study in Barcelona**. *GI Forum 2013. Creating the GISociety* 2013: 137-146. Berlin: Wichmann.

Glutting JP, Reche PA, Fridkis-Hareli M. **Bioinformatics-based predictions of peptide binding to disease-associated HLA proteins suggest explanation for shared autoimmunity**. *Immunology and Immunogenetics Insights* 2011:3 1-57, doi: 10.4137/III.S6558.

Reche PA, Glutting JP, Zhang H, Reinherz EL. **Enhancement to the RANKPEP resource for the prediction of peptide binding to MHC molecules using profiles**. *Immunogenetics* 2004 Sep;56(6):405-19. Epub 2004 Sep 3.

Reche PA, Glutting JP and Reinherz EL. **Prediction of MHC Class I Binding Peptides Using Profile Motifs**. *Human Immunology* 2002, 63: 701-709.

Reche PA, Zhang H, Glutting JP, Reinherz EL. **EPIMHC: a curated database of MHC-binding peptides for customized computational vaccinology**. *Bioinformatics* 2005 May 1;21(9):2140-1. Epub 2005 Jan 18.