Dr Ian Turton

Contact Information
E-mail: ian@ianturton.com
Web: www.ianturton.com

Objective

Interested in both permanent and contract positions with geospatial and data science programming and consultancy. Based in Glasgow and ideally looking for a fully remote position.

Citizenship

UK

Interests

Web based mapping, open source software, cartography, geographic analysis, data science, machine learning

Education

1988-1992 Ph.D. in Geophysics, Department of Geology and Geophysics, University of Edinburgh. Temporal and Spatial Variations of the Geomagnetic Field, up to a Timescale of 10^5 Years.

1994-1997 M.Sc. in Human Geography, (by research) School of Geography, University of Leeds. Application of Pattern Recognition to Concept Discovery in Geography.

1985-1988 B.Sc. (Honours) 2.1, Geophysics and Planetary Physics, University of Newcastle upon Tyne.

Employment

Software Engineer

October 2023 - Present Research Software Engineer, University of Glasgow, Glasgow, UK. Working in the Geospatial Data Science team my role was to support the programming needs of the researchers. I took the lead on a web mapping site designed to collect information from the public, and an Android application to collect GNSS data with a corresponding back end service to accept the data and calculate the height of buildings from the missing satellite signals. I also provided lectures for the Masters course on web mapping, general cartography and data visualization.

October 2015 - October 2023 Principal GeoSpatial Architect, Astun Technology, Epsom. At Astun I fulfilled a variety of roles, most often operating in as a consultant to end users of geospatial software such as GeoServer and PostGIS. I also regularly conducted training courses on GeoServer, QGis, PostGIS and Python, including the development of QGis plugins. I worked independently or as part of a small team providing agile services including both back end and front end geospatial solutions.

August 2011 - May 2015: Principal Software Engineer, Envitia Ltd., Horsham. While at Envitia, I worked on a variety of government projects, including a data migration project enabling the transition from a legacy solution to the OpenGeo product offering, for Registers of Scotland. I was involved with the development of the Envitia MapLink product as well as several other defence related projects including a research and development project for MoD investigating future GI technologies over the next five to ten years. Recently I worked with the Scottish Government's Rural Affairs department to web enable their Common Agricultural Policy (CAP) payments system.

Postdoctoral Researcher

November 2005 - August 2011: Department of Geography, Pennsylvania State University.

Nov 2005 - Aug 2011: I developed and taught two courses as part of the Online Master of GIS program. The first Open Web Mapping which was a course that introduces students to open source programs and open standards related to web mapping (WMS, WFS, SLD, GML). It takes students who often have no experience with web mapping and takes them through to being able to create their own web map client and server set up. The second course was Geospatial System Analysis and Design was jointly developed to provide a modern introduction to the Master in GIS program. It is a 10 week course that provides a different topic of discussion each week covering project design, software architectures, open source and proprietary software, programming languages, data sources and databases.

Nov 2005 - Aug 2011: Senior Research Associate at The GeoVISTA Center, during this period I worked on a wide variety of projects:

GeoCAM: Geographic Contextualization for Accounts of Movement
Health GeoJunction
NEVAC
GeoCollaborative Crisis Management
GeoVISTA Studio development

October 1999 - November 2005: School of Geography, The University of Leeds

March 2000 - November 2005: Director, Centre for Computational Geography (CCG), School of Geography, University of Leeds

The CCG is a research group within the School of Geography, University of Leeds. As director I was responsible for overseeing the conduct of projects within the group, development of external links, personal development of researchers, and the development of future research plans. I was also responsible for administration, finance and ensuring continuity of contracts for the research staff within the group. Projects undertaken by the group range from social policy work to flood forecasting, using a variety of geographical analytical techniques, mostly developed by the CCG itself. CCG projects were frequently multidisciplinary, involving collaboration with other departments in the university and external organisations.

Oct 1999 - November 2005: Departmental Research Fellowship, School of Geography, University of Leeds

Nov 2004 - July 2004: Developing Interoperable Web Mapping for the Academic Sector

Nov 2002 - Oct 2003: Conformance and Interoperability Testing Exercise (CITE)

Oct 2002 - Sept 2003: Scientific mobility in Europe

Oct 2001 - Sept 2004: The Great British Historical GIS

Jan 2000 - Dec 2002: SPIN! - Spatial mining for data of public interest

Oct 1997 - Sept 1999: Public participation in local decision making: evaluating the potential of virtual decision making environments

Oct 1997 - Sept 1999: Artificial Intelligence Project for Smart pattern detection

Nov 1992 - Nov 1994: Unix Sample of Anonymised Records (USAR)

Technical Skills

I have extensive technical skills in a variety of programming languages. I am a founder of the GeoTools project, and continue to be on the project steering committee. I contribute to GeoServer code base and am active on the mailing lists of both projects (among others). I was an elected community moderator on the GIS.stackexchange forum for over 10 years from its start until last year. I am a founding charter member of The Open Source Geospatial Foundation which supports the development of geospatial open source projects.

Programming: Java, Python, JavaScript, UNIX shell scripting

Mapping Tools: QGIS, GeoServer, MapServer, OpenLayers, Leaflet

Computer Applications: Oracle DB, SQLServer, PostgreSQL/PostGIS, LaTeX, most common office productivity packages (for Windows, OS X, and Linux platforms), Vi