

PATRICK R. RICKLES

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PERSONAL PROFILE

Ambitious, innovative, and a problem solver, I gladly take on new responsibilities and go above and beyond what is required. By keeping up to date on trends and quickly learning new technologies, I design custom solutions and build them or manage teams to do so, with the focus on improving efficiency and pushing the limits of what is possible with GIS. I am self motivated, deliver timely and high quality work and enjoy helping my team members succeed.

SKILLS

ArcGIS (Desktop, Server, Online), MapInfo, QGIS, Geoserver, HTML, XML, Java, JavaScript, JQuery, Visual Basic, Django, Python, R, PHP, SQL, Oracle, SQL Server, MySQL, PostgreSQL/PostGIS, ArcGIS API, Google Maps API

EMPLOYMENT HISTORY

HM Courts and Tribunals Service – London, United Kingdom (Jun 2018 – present)

Positions Held: Team Lead - Business Intelligence and Spatial Data Science

Building data science capability to deliver advanced analytics and insights on court performance

- Inherited and refined Python code to make API calls to Google Maps API for travel time calculations (drive time and public transportation time) between court user and court postcodes to advise on new locations and closure of existing locations, ensuring equal access to justice. Later assisted with translation into R for continued maintenance.

Ministry of Housing, Communities and Local Gov't – London, United Kingdom (Aug 2017 – Jun 2018)

Positions Held: Implementation Analyst

Designed and developed geospatial strategies and solutions to improve decision making on national housing policies

- Automated workflow using VBA to clean Excel data and output as a text file to then be picked up by Python code to geoprocess in File Geodatabase and zip up for ArcGIS Online. This was (and still is) run on a monthly basis to construct the authoritative datasets of the government department to contribute to Esri Living Atlas. These are also served out via custom built ArcGIS Open Data site. [\[LINK\]](#)

University College London – London, United Kingdom (Nov 2010 – Aug 2017)

Positions Held: Research Assistant, Research Associate

Project managed research teams and advised on technologies for university research

- Produced online system for spatial and non-spatial data storage and automatic metadata creation using Linux, Apache, MySQL, PHP (LAMP) stack, which provided governance and reporting throughout the lifetime of suburban histories research project. [\[LINK\]](#)
- Took ownership of and refined online auto-ethnographic mapping system for citizen science projects using LAMP stack.
- Created custom Python scripts for geoprocessing large socio-historical road and business datasets for investigating change of economic diversity of time. Data stored and processed within PostgreSQL/PostGIS. [\[LINK\]](#)
- Developed checklist plugin for open source geospatial system with Django, HTML, JavaScript using MVC pattern, stored in GitHub, for local communities to record emergency supplies for disaster preparedness. Data were stored in PostgreSQL/PostGIS. [\[LINK\]](#)
- Conducted data mining experiment of Google Scholar and screen scraped results (over 25,000 searches) with custom LAMP stack to identify prominent interdisciplinary research articles using GIS. [\[LINK\]](#)

Mapping Application – London, United Kingdom (Apr 2010 – Aug 2012)

Positions Held: Managing Director

Improved workflows with automation and reduced costs that made visible impact for clients

- Designed web GIS with improved capabilities using Flex, JavaScript, HTML, Bing Maps API and ArcGIS Server (SQL Server, Windows Server) to facilitate investigation of oil field and equipment ownership information.
- Launched web app on intranet using Flex, JavaScript, HTML and ArcGIS Server (SQL Server, Windows Server) for live tracking of company oil tankers.

WSP Group plc – London, United Kingdom (Mar 2008 – Apr 2010)

Positions Held: GIS Developer, Senior GIS Developer

Led and supervised technical developments to grow the UK GIS team's capabilities

- Developed an award nominated web geospatial solution (UK IT Awards 2009 Finalist) with Flex, ASP.net, JavaScript, HTML, incorporating Google Maps API and Google AJAX Search API, to serve out company assets, stored in ArcGIS Server (Linux Server, Oracle), which saved the organisation time and money in operations costs and through efficiency gains. [LINK](#)
- Produced a suite of tools in ArcGIS Desktop using Python to streamline flood modelling calculations for accurate insurance rate assessments.
- Created web GIS, using existing technologies (Flex, ASP.net, JavaScript, HTML, ArcGIS Server, Oracle), for Highways Agency to more efficiently plan road works.

Esri Inc. – Virginia, United States (Mar 2007 – Mar 2008)

Positions Held: GIS Developer

Consulted to the US Government and created custom systems for classified operations

- Created system for naval chart production using C#.net, HTML and JavaScript, interfacing with ArcGIS Server (Windows Server, Oracle), to reduce production time from 40 hours to 4 minutes. Codebase was MVC pattern, developed in Visual Studio, versioned and stored in SourceSafe. [LINK](#)
- Authored tools in Python using Visual Studio, with code stored in SourceSafe, for ArcGIS Workflow Manager to assign and record work for versioning and accountability.

Advanced Resources International, Inc. – Virginia, United States (Nov 2005 – Mar 2007)

Positions Held: GIS Analyst

Analysed geological and petroleum resources for private and public sector clients

- Engineered interfaces and cross-program processes within Microsoft Office using VBA to facilitate data entry/calculations, automate creation of documents and presentations and customise mail merges.
- Streamlined multi-function geoprocessing and cleansing for large volumes of environmental datasets using VBA in ArcGIS Desktop and standardised map outputs. [LINK](#)

Bartlett School of Graduate Studies – London, United Kingdom (Feb 2005 – Sept 2005)

Positions Held: Research Assistant

Classified crimes that occurred in London and identified properties at risk

EDUCATION

PhD Geographic Information Science UCL, London, UK, Mar 2019

Thesis: "Teaching Interdisciplinary Researchers Geographic Information Systems: A Suggested Approach"

MSc Geographic Information Science UCL, London, UK, Sept 2005

Dissertation: "Web GIS Profiles of Elevation and Vegetation Information of Madagascar"

B.S. Applied Arts and Sciences RIT, New York, US, May 2004

Concentrations: Computer Science Studies and Environmental Management Science

AWARDS AND CERTIFICATIONS

- AgilePM Foundation and Practitioner, APMG International, 2020
- UCL Esri Development Centre Student of the Year, 2017
- Chartered Geographer (GIS), the Royal Geographical Society (with the Institute of British Geographers), 2016

- APM - Project Management Qualification (PMQ) [IPMA Level D, SCQF Level 7], 2016
- UK Winner of the Esri Young Scholars Competition, 2015
- Professional Certificate in Teaching and Learning in Higher and Professional Education, UCL IOE, 2014
- UK IT Industry Awards: Private Sector Project of the Year (Finalist), 2009
- Association for Geographic Information Awards: Project of the Year (Highly Commended), 2009

PROFESSIONAL MEMBERSHIPS

- Deputy Head of Geography - Diversity and Inclusion, Government Science and Engineering, 2018
- Member of Government Operational Research Service, 2017
- Fellow of the Higher Education Academy, 2014
- Member of the Association for Geographic Information, 2011

PUBLICATIONS

Ricker, B., Rickles, P., Fagg, G. & Haklay, M. (2020). Tool, toolmaker, and scientist: case study experiences using GIS in interdisciplinary research. *Cartography and Geographic Information Science*, 1-7.

<https://doi.org/10.1080/15230406.2020.1748113>

Rickles, P., Ellul, C. & Haklay, M. (2017). A Suggested Framework and Guidelines for Learning GIS in Interdisciplinary Research. *Geo: Geography and Environment*, 4(2), 1-18. <https://doi.org/10.1002/geo2.46>

REFERENCES AVAILABLE UPON REQUEST