

Seamus has worked full-time in environmental and research applications of geoinformatics, remote sensing GIS and geosurvey since 1999. The focus of his work since 2004 has been coastal. He set up Envo-Geo in 2015.

## QUALIFICATIONS

	University	Result	Year
PhD in Geocomputation ( <i>3D remote sensing, GIS, Geostatistics &amp; Geomatics for sea-level rise models</i> )	NCG, NUI Maynooth	Passed defense with no corrections – <i>extern Mike Goodchild</i>	2008
Pgr. Diploma ( <i>MSc - no thesis</i> ). RS & GIS	NUI Maynooth	1H - <i>placed 1<sup>st</sup> in class</i>	2000
MSc. Env. Res. Mgmt. ( <i>thesis RS</i> )	NUI Dublin (UCD)	1H - <i>placed 1<sup>st</sup> in class</i>	1999
M.Phil. Climatology ( <i>Jet Stream &amp; storm tracks</i> )	NUI Cork (UCC)	Passed with no corrections	1998
BA Geography ( <i>primarily Physical &amp; Environmental</i> )	NUI Cork (UCC)	Single Honours	1996.

## EMPLOYMENT HISTORY

**2015 to present** Owner Founder Envo-Geo Environmental Geoinformatics.

**Oct 2019 – Sep 2021** Geological Survey Ireland Postdoctoral Research Fellow (Intertidal and nearshore 3D extraction)

**Aug 2012 – Sep 2015** Short-term contract Lecturer in GIS, Remote Sensing & 3D Geoinformatics, University of Glasgow

**Nov 2011 - April 2012** Science Foundation Ireland Research Fellow, UNSW Sydney, NSW, Australia

**Feb 2008 - July 2012** SFI StratAG Research Fellow, National Centre for Geocomputation, NUIM, Ireland

**Oct 2006 – July 2012** Part-time lecturer in MSc remote sensing, and MSc climate change (*GIS module*), NUIM, Ireland

**Jan 2005 - Jan 2008** PhD student, National Centre for Geocomputation, Maynooth (& occasional consultancy)

**July 2002 – Dec 2004** GIS Manager SWS Group, Cork (*GI project management on 11 large renewable energy projects*)

**Dec 2000 – July 2002** GIS Consultant Proteus Solutions, Cork (now 1Spatial Ireland – *roads and drainage projects*)

**May 2000 – Oct 2000** GIS Technician, RPS Environmental Sciences.

## PROJECT & RESEARCH PUBLICATIONS

Envo-Geo projects <http://envo-geo.ie/projects.php>

Google Scholar <https://scholar.google.es/citations?user=5022EW4AAAAJ&hl=en>

## PRINCIPAL TECHNICAL SKILLS

<b>Desktop GIS</b>	ESRI Arc, QGIS (incl. SAGA & GRASS), ArcView #x, MapInfo, ACD Map.	21 years (cumulative)
<b>Optical Remote Sensing</b>	Erdas Imagine, PhotoScan, ER Mapper, IDA	10 years (cumulative)
<b>3D GIS</b>	ESRI Spatial Analyst, 3D Analyst and Geostatistical Analyst	15 years (cumulative)
<b>Airborne LiDAR</b>	LIDAR accuracy, error spatial dependence, 3D feature classification	7 years (cumulative)
<b>Geostatistics</b>	Kriging for topo DEM data (LiDAR, TLS, GNSS, SAR), DEMs	5 years (cumulative)
<b>UAV remote sensing</b>	UAV /UAS survey, photogrammetry, DSM modelling, GPS fusion.	3 years (cumulative)
<b>Web GIS</b>	GeoServer / OpenLayers / QGIS Server / AziMap.	Fundamentals.
<b>RS Feature extraction</b>	Satellite UAV spectral feature extraction & DSM fusion extraction.	3 years (cumulative)
<b>LiDAR satellite data</b>	ICESat-2 bathymetric extraction, refraction-adjustment & validation.	2 years (cumulative)
<b>Spatial Programming</b>	Python 3D extraction, PyQGIS (& basics of Java, XHTML & SQL)	2 years (cumulative)
<b>Algorithm development</b>	Feature recognition & extraction from 2D & 3D data sets	3 years (cumulative)
<b>Terrestrial Laser Scan</b>	Topo & DEM, 3D urban models, 3D nav, road marking recognition.	3 years (cumulative)
<b>CAD / 3D Modeling</b>	AutoCAD 3D, 3DS Max / 3D Viz, LandXplorer.	2 years (cumulative)
<b>GPS survey</b>	Survey, post-proc, accuracy, DEM, UAV photogram fusion.	3 years (cumulative)
<b>SAR Remote Sensing</b>	SAR DTM vertical accuracy in coastal applications.	1 yr. (cumulative)