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EDUCATION

Computer Science Certificate, 2002

Laval University, Sainte-Foy, Quebec City, Canada

B. Sc. Geomatics Engineering, 2001

Laval University, Sainte-Foy, Quebec City, Canada

COMPLEMENTARY FORMATION

Semantic Web Technologies, CRIM, 2006

Advanced Object-Oriented Development using Design Patterns, Technologia, 2006

Advanced Web Application Development using Struts, CRIM, 2006

OGC and ISO Specifications, Natural Resources Canada, 2005

Advanced GML, Galdos Systems Inc., 2005

GEOINT 2004 Symposium, New Orleans, 2004

Open Source GIS Conference 2004 & Annual Mapserver User Meeting, 2004

LuciadMap and LuciadWMS, Luciad, 2004

BEA WebLogic: Developing Data solutions, BEA Education Services, 2004

Microsoft Visual C#.NET, Microsoft Canada Co., 2003

EXPERIENCE

Defence R & D Canada – Valcartier, Valcartier, QC

System Architect 2006/04 –

Project: Applied Research for Geospatial Information Management (ARGIM)

- Develop next generation capabilities integrating knowledge exploitation and geospatial technologies in support to gathering and analysis of geospatial intelligence from multiple sources;
- Develop a new GEOINT framework based on free and open source software, portal technology (JSR-168) and standards (ISO, OGC, W3C, etc.);
- Manage contracts with industrial partners.

Natural Resources Canada – Geological Survey of Canada – Quebec City, QC

System Architect / Analyst / Programmer 2005/09 – 2006/04

Project: National Groundwater Database (NGWD)

- Determining a database exchange standard based on Geographic Markup Language (GML), Observations and Measurements (O&M) and SensorML from the international OGC standards (Open Geospatial consortium);
- Implementing the architecture that allows the dynamic conversion of hydrogeological data from a local format distributed in a number of databases towards a common standard (H2O);
- Implementing the architecture for exchanging data using protocols derived for OGC standards, i.e. Web Mapping Service (WMS), Web Feature Service (WFS), Web Coverage Service (WCS) and Sensor Observations Service (SOS).

Defence R & D Canada – Valcartier, Valcartier, QC
System Architect / Analyst / Programmer 2005/01 – 2005/09

Project: TerroGate

- Specialize a generic Named Entities annotation module of the open source framework called GATE (<http://gate.ac.uk/>) in order to increase its precision / recall performance over terrorism-related electronic texts;
- Develop a new knowledge domain relative to terrorism including a thesaurus, an ontology and grammar rules.

Defence R & D Canada – Valcartier, Valcartier, QC

System Architect / Analyst / Programmer 2002/07 – 2005/09
Project: GeoFusion for Retrieving and Indexing Documents (GRID)

- Design and implement an infrastructure based on J2EE and ISO/OGC service-oriented architectures that allows to extract geographic information from electronic texts (geocoding), georeference locations (geocoding) and spatially index the information;
- Implement a geoparser based on the free and open source framework called GATE;
- Develop an in-house gazetteer derived from NGA, USGS and NRCAN gazetteers;
- Design and implement a SVG Web Mapping client in JSP, relying on OGC WMS and WFS protocols, based on the free and open source JavaScript library Mapbuilder.

Kodak Global Imaging inc., Québec, QC

Analyst / Programmer 2001-2002

- Research and Development for implementing new geospatial functionalities to support the import, edit, manipulation and export of aerial and satellite imagery, such as cropping, mosaicing, tiling and reprojection;
- Design and development of a COM library for cartographic reprojection, based on EPSG geodesic parameters and on open source components PROJ.4 and OGR;
- XML design for metadata (geokeys) relative to spatial reference of images in GeoTIFF format.

PUBLICATIONS

Auger, A., Morin, M.-A. (2005). *TerroGate: A New Information Extraction Technology Designed for the Terrorism Domain*. Défense Sécurité Innovation, Quebec City, Québec

Létourneau, F., Morin, M.-A. (2004). *Le projet GRID : infrastructure d'analyse géosémantique de données textuelles à caractère géographique*. Colloque Géomatique 2004, Montréal, Québec

LANGUAGES

French and English