

Sean Nichols, B.Sc.

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Professional Summary

A knowledgeable and dedicated GIS specialist and software developer, specializing in environmental impact analysis, and with expertise in data & statistical analysis, along with database and networking programming. Over 15 years working as a consultant and in the not-for-profit sector has furnished me with a hard-working ethic, a "can-do" attitude, and a talent for finding unique and original solutions to challenging situations.

Areas of Expertise

Software Development ♦ GIS ♦ Environmental ♦ Analytics & Type Theory ♦ Web & Database

Highlights include QGIS and ArcGIS platforms; PostgreSQL+PostGIS and MySQL databases; Python, Java, Visual Basic, PHP, Javascript and Wordpress frameworks along with Google Mapping and/or OpenLayers applications, MapServer and more.

Selected Work Experience

Consultant / GIS Specialist / Developer, 2017 – 2019

HBA Specto, Inc. – Calgary, Alberta

- Collaborated on the design, and implemented MrsGUI, a software suite spanning web, desktop and QGIS plugin interfaces, to run scenarios and render GIS visualizations for PECAS: a special economic, land-use and transportation modelling framework.

Conservation Specialist, 2004 – 2016

Alberta Wilderness Association – Calgary, Alberta

- Acted as an environmental advocate for wilderness concerns across Alberta, including performing research & field work, working with media, producing environmental impact assessments and sitting on planning committees and land use boards.
- Spearheaded, designed and carried out a decade-long recreational vehicle research project in the North Saskatchewan watershed, including impact monitoring, statistical and GIS analysis.
- Performed GIS and data analysis related to human development impacts on environment and wildlife in Alberta, including threatened greater sage-grouse and woodland caribou habitats & range.

Instructor & Teacher's Assistant, 2006 – 2009

University of Calgary department of Computer Science – Calgary, Alberta

- Instructed undergraduate and graduate students in topics on programming language and compiler design, computational theory, and functional programming methodologies.

Consultant / Developer, 1999 – 2000

Rapid IAS – Reston, Virginia

- Developed QuickADS, a windows-based point-and-click interface to CHCS, a VAX mainframe-based medical database used by US Department of Defence installations world-wide.
- Developed applications to assist in testing and designing remote location abilities for US Wireless. These include database applications to maintain test data and network applications to efficiently collect test data from roaming devices.

Intern / Developer, 1996 – 1999

Attachmate Canada – Burnaby, British Columbia

- Designed and developed a user-friendly GUI interface for an online medical database for a large corporate client: *"Developed custom smart pads for CHCS, a primary military medical application resulting in an overwhelming advantage in ease-of-use that leverages the customer's investment in legacy systems while bringing in the true power of a GUI."*

Education

Bachelor of Science: Computer Science and Pure Mathematics, 2006
University of Calgary – Calgary, Alberta

Graduate studies toward Master of Science: Computer Science, 2007-2010
University of Calgary – Calgary, Alberta

Selected Volunteer Experience

Board Member / Vice President / Volunteer / Box Office, 2009 – 2019

Calgary Fringe Festival – Calgary, Alberta

- Served on the board of directors 2010 – 2019 (Vice President 2011 – 2014). Wrote and implemented Box Office ticketing software for the festival (point-of-sale and online) used from 2010 – 2015. Also volunteered at the festival proper from 2009 onward.

Volunteer / Box Office, 2014 – 2019

Calgary Cinematheque – Calgary, Alberta

- Volunteered at box office and fundraising events.

Human Languages

English ♦ French ♦ Russian ♦ Spanish

Hobbies

When not learning new languages or programming **GIS collaboration applications** for the communal augmented reality game Ingress, you can often find me on my bicycle, engaging in the my take on the hallowed road trip, be it local or global. Most recently in 2016 I spent 7 months on a **15,000km bike trip across Russia and Europe**, the most recent additions to my roster of 18 countries crossed by bike. I also enjoy honing my knowledge and analytical thinking playing board games and trivia, and love spending time in the kitchen cooking tasty treats.