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Education

▪ 2011-2017   University of Victoria   Victoria, BC

  -Combined B.Sc. in Computer Science and Geography with Co-op

Technical Skills

▪ Programming Languages:

  -Advanced understanding of Java, C, C++, Python, Oracle SQL, PostgreSQL, OpenGL, HTML, CSS and Javascript, as well as Leaflet.js, OpenLayers, and Bootstrap

  -Versed in mining social media for geo-located data using the Tweepy API

▪ GIS:

  -Proficient in ENVI, PCI Geomatica, GlobalMapper, PostGIS, ArcGIS 10+, ArcGIS Pro, and QGIS, specifically with regards to integrating APIs into custom QGIS Plugins.

  -Experienced in implementing Geoserver and PostGIS on multiple platforms

  -Deeply experienced with MapBox Studio and embedded uses of MapBox Products

▪ Statistical Skills:

  -Competent in advanced spatial statistical analysis such as Kriging, multi-variate and Geographically Weighted Regression.

▪ Software Development:

  -Versed in web app development, particularly with relation to GIS web mapping using OpenGeoSuite technologies

  -Thorough understanding of Github flow process

  -Integral knowledge of relational and non-relational database management systems

  -Thorough understanding of the fundamentals of Computer Graphics

  -Comfortable working on multiple platforms including Windows and UNIX environments

  -Competent in installing operating systems, core software packages and other IT tasks

  -Deep knowledge of both PowerBI and PowerBI Report Server

▪ Work Environment Skills:

  -Excellent customer service skills by maintaining alumni relations with UVic and ensuring alumni support through donations to the university

  -Self-motivated worker requiring little to no supervision, however I have much experience efficiently working with others in a team environment.

  -Fluent in French

Relevant Experience

- Province of British Columbia, Ministry of Citizen Services as a Data Analyst (February 2019-present):

    -Worked with the Network BC to develop and oversee the creation of the Community Information Tool, a PowerBI-based data visualization application meant to aggregate and display data surrounding connectivity to stakeholders invested in the expansion of BC's internet infrastructure

    -Work within Citizen Services to set up a PowerBI Report Server such that the Community Information Tool could be shared across government to leverage the power of data visualization when in discussions with external parties.

    -Aggreagated, cleaned and synthesized spatial data to be used within PowerBI using a combination ArcGIS Pro, Excel, Powerquery M and Mapbox.

    -Lead the design process for the subsequent versions of the CIT, including prioritizing then implementing test user feedback

- IIC Technologies, North Vancouver BC, GIS Analyst, LiDAR Operator and Python Software Developer (August 2017- February 2019):

    -Facilitated bathymetric LiDAR collection by spending upwards of 8 hours a day operating IIC's airborne bathymetric LiDAR sensor from within a twin-engine aircraft

    -Processed the newly-collected LiDAR data to generate an initial product to be sent to IIC Hyderabad for processing as well including the initial product within daily field reports sent to the client

    -Developed Python extensions in QGIS to implement an algorithm to estimate Satellite Derived Bathymetry, the Python code for this project was presented at the 2018 Shallow Survey Conference in St. John's, NL

    -Evaluated LiDAR processing efficiency at the IIC Offices in Hyderabad, India in February 2018 over 10 days by adjusting the quality assurance protocols to reflect the environmental conditions of data acquisition in the field

    -Prepared and instructed a 10 day course in Python programming, math and physics to a class of 15 international students as a part of the 2018 International Hydrographic Organization S-5 Category B Surveyor certification program in Busan, South Korea.

- University of Victoria Alumni Relations, Saanich BC, senior student caller (May 2016 – April 2017):

    -Maintained important relationships between UVic and its Alumni through outreach calling

    -Ensured vital alumni donations were secured by highlighting the importance of Alumni participation

- Canadian Hydrographic Service, Sidney, BC, as a GIS technician (May-December 2015):

    -Analyzed bathymetric data using ArcGIS and the CARIS software suite to update Canada's repository of nautical charts with current survey data

    -Developed Python software to expedite the process of chart accuracy analysis, file conversions and file management

- Tsleil-Waututh Nation, North Vancouver, BC, as a GIS technician (May-August 2014):

    - Generated maps using ArcGIS to generate maps of coastal islands and culturally significant areas using traditional place names and cultural iconography

    -Conducted field surveys around the reserve using Trimble differential GPS

    - Managed the re-organization of geographic data stores through the heavy implementation of ESRI data products

- Natural Resources Canada Shared Services office, Pacific Forestry Centre, Victoria BC, as an assets management clerk (May-August 2013):

-Inventorying all assets for the NRCAN Shared Services Offices at the Pacific Forestry Centre using the SAP financial System, often collaborating with other departments to locate assets.

-Shipping and receiving packages for the Pacific Forestry Centre as well as managing the stock room.

Personal Projects and Interests

Ongoing construction of personal website complete with interactive web maps of various personal projects

Digitization of damaged infrastructure under the open-source GIS project OpenStreetMaps immediately following the Tibetan earthquake of 2015,

Ongoing contributions to several Free and Open Source Software (FOSS) projects

Currently in development of a customizable all-purpose web-based GIS using the OpenGeoSuite stack

Volunteering

Volunteer teaching assistant with the University of Victoria's computer science department during computer classes for senior citizens.

Volunteer with the University of Victoria's community mapping department to help run community-driven mapping events throughout the Greater Victoria Area