



Dear Selection Committee,

I am writing this application to express my interest and motivation to work as a **GIS Professional**. I want to utilize my knowledge of both **GIS** and **LiDAR** fields, and combine them with my expertise in programming to real-world scenarios. I am interested to work with creative, cooperative and successful GIS professionals.

I have completed my **Masters in GIS** in the Department of Geography of the **State University of New York at Buffalo (UB)**. Apart from Bachelors and **Masters in Geography** with **Coastal Geomorphology** and **GIS** as my specialization, I have also attained a **Bachelor's degree** in **Computer Applications**, which gave me a deep understanding of software and web programming. Recently, I acquired certification of **LEAN Six Sigma GREEN BELT**, which utilizes Lean methodology, Six Sigma Principles, **Project Management**, Change Management, and Strategic Thinking in various sectors.

I was a **LiDAR and Photogrammetry Analyst** in **Fugro Canada** where I was able to **lead** and **supervise** various **state government projects** to extract different assets using **LiDAR technology** and **Photogrammetry analysis**. I was also in charge of creating **training documents** and videos as part of **knowledge sharing**. I implemented **Lean principles** to report **daily production oversight** for all geospatial-related projects. I ensured the maintenance of optimal data quality by applying **QA/QC principles**.

For more than a year, I was a **Graduate Assistant** in the Geographic Information and Analysis Lab (GIAL), a multipurpose computing facility that supports the teaching and research needs of students and faculty in our department. I also have experience in **maintaining** the department **website** with Adobe Contribute and personal websites of professors with **Google sites** and **ArcGIS Hub**. I worked as a **Lecturer** in the summer for two years and as a **Teaching Assistant** for more than two years in my department. Recently I was an **Adjunct Instructor** in the **SUNY at Buffalo**, Department of Geography for a course focusing on **web-based GIS**. Most of the lectures I taught required me to design **GIS and Remote sensing** specific projects for the students, which were unique for each course.

I have extensively used **GIS** for most of my projects:

- Monitoring Spatio-Temporal Coastal changes: Using Lidar Data
- Relative comparison of rill network evolution in two similar soil-mantled experimental landscapes
- Suitability Assessment for the habitat of Blanding's Turtle in the Western part of Erie County
- Estimating optimal spatial location for Offshore Windfarms using Spatio-Temporal Kriging
- Renderer Menu Tool - an ArcGIS menu that allows changing the rendering of LAS datasets with different selection buttons using C#
- Transparency Tool - which allows user to change the transparency of a shapefile in ArcMap

Over the years, I have acquired technological skills like **web programming** (HTML, JavaScript, VB Script), **computer programming** (C++, C#, Java, Visual Basics, R script, Python), **database design** and use (Microsoft Access & SQL) and **software** like RiPROCESS, POSPac, ArcGIS, AutoCAD, R Studio, FME, ENVI, Matlab, SPSS, Microsoft Office 2016, Visual Studio.

As an experienced Analyst, I am able to responsibly **lead**, **manage** and **supervise** GIS and LiDAR projects. I gained the expertise to **teach**, **assist**, **coordinate** and **organize** different Geography and GIS courses along with a culmination of academic prowess.

I enjoy implementing **LEAN (Six Sigma)** methodologies for **process improvement**. I am a **quick learner**, **team player**, **quality-oriented** with **management**, **leadership**, and **problem-solving skills**.

I have enclosed my resume with the application, which provides more details of my skills and projects.

Sincerely,

Manita Choudhary.