Qinren Kang

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Education & Technical Skills

University of Toronto, Toronto, ON   Date of Graduation: Nov, 2023
Master of Information Studies, Major in Data Science & Information System

University of Waterloo, Waterloo, ON   Date of Graduation: April, 2021
Bachelor of Environmental Studies, Major in Geomatics

- **Technical Skills**: Solid knowledge and practical experience for programming language using **Python**, **SQL** Queries and Relational Database Management, **R**; Advanced Excel (VBA, Macro etc.); Performing comprehensive **data mining** using RapidMiner, Disco; Pipeline deployment for big data analysis using **Azure ML**, linear/logistic regression, statistical analysis, multi-variate analysis etc.; Project management using Agile & Traditional practices
- **Career Focus**: Information and Data Analysis, Machine Learning, Database Management

Work Experience

Strategist Support Officer, *Environment and Climate Change Canada*   Jan 2020 - Apr 2020

- Collaborated with scientists in development of the **multi-criteria decision** project utilizing analytic hierarchy process, **advanced Excel** tools, **SQL** and statistical algorithms
- Fulfilled mapping requests and documented procedures for network performance and quality reporting by data analysis, interpretation on geographic information system softwares

Wildlife Data Analyst, Environment and Climate Change Canada (ECCC)   May 2019 - Aug 2019

- Scripted a **python** automation project based on ECCC manual procedure to identifying the Critical Habitat for Species at Risks by implementing ArcPy, NumPy and other libraries, representing a 75% time efficiency boost from 8 hours to 2 hours on average
- Advanced the knowledge of **data compilation, management, and analysis** through analysis of species occurrence and abundance in the Maritimes for the purpose of conservation and landscape planning initiatives
- Supported GIS analysis and represent the interests of clients in the effective and efficient management of their real property programs in geomatics sector disciplines including cadastral, geodetic, hydrographic, photogrammetric and geospatial data management
- Collaborated with various wildlife biologists in the Maritimes to work with datasets and examine potential monitoring and conservation initiatives

Practical Projects

Machine Learning, Azure Studio Global Happiness Project   Sep 2021 - Dec 2021

- Performed **K means** and **PCA** classification on 149 country's happiness score and the vaccination rate from **Kaggle**. Fine-tuned the models and obtained a high correlation with nearly perpendicular PCA shapes
- Conducted data cleaning and various sampling methods on highly right skewed dataset with **python** log transformation to obtain a nearly normally distributed data
- Visualized country clusters and linear regression model to reveal the correlation among different criteria

Python Analysis, ArcGIS Network Automation Project   Jan 2019 - Mar 2019

- Automated the location-allocation **network analysis** procedures for a retail site selection by implementing AHP analysis, processing and evaluating raster data in **python**
- Queried various databases using **PostgreSQL** queries (spatial and attribute-based SQL) to examine the geometry field and indexes for the purpose of data extraction, management and analysis
- Utilized ArcCatalog and ArcMap to quickly assemble large scale of spatial data from diverse data sources

Personalities

A adaptable, self-motivated, energetic, flexible and hard working team contributor

Detail-oriented, analytical and organizational person