New Brunswick Flood Risk Map

William, Avinaba, Sima
ECCE 2022 App Challenge

University of New Brunswick

Team Mission Statement

Providing near real-time water level report and historical flood map information to the New Brunswick government and the public for an easy and intuitive decision support to mitigate flood risk in the province.

Statement of the characteristics

This app is built on ArcGIS online and deployed as a webapp, thereby making it accessible from any device that supports a web browser. It leverages near real-time hydrometric data provided by Meteorological Service of Canada maintained by ArcGIS to account for data veracity and freshness. Envisioned as a decision support tool for civic authorities, the UI controls for map navigation and manipulation naturally align with the hierarchical command structure. We hope this app serves as proof of concept of how historical and real-time data may be utilized in tandem to increase flood preparedness and risk mitigation.

Team Bio

- William Liu

William Liu is a software developer and part-time MSc student in remote sensing and GIS field. He works for the Advanced Geomatics Image Processing Lab at University of New Brunswick and has participated various research and software development projects in image processing, computer vision, remote sensing, and GIS.

- Avinaba Mistry

He is a computer science graduate student at the University of New Brunswick, Fredericton. He is pursuing completion of his thesis centered around geo-spatial considerations of contagion spread under the supervision of Dr. Suprio Ray. Before resuming his academic career after completing his undergraduate degree, he acquired 5 years of professional UX design experience in startups. He aspires to utilize his distinct background to bring fresh perspectives to solve complex problems.

- Sima Peyghambari

Sima Peyghambari received a PhD. Degree in Geology (Petrology) from Shahid Bahonar University of Kerman (Iran). She was an assistant professor in the Geology department of Payame-Noor University of Tehran (Iran). She is PhD student in Engineering under supervising Dr. Zhang at the University of New Brunswick. She has authored or coauthored over 10 research papers.