MITCH KRAFCZEK

SOFTWARE DEVELOPER, POLICY ADVISOR

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EDUCATION

University of New Brunswick
Master of Science in Engineering
2018 - 2021

University of New Brunswick
Diploma in University Teaching
2020 - 2020

University of Waterloo
Bachelor of Environmental Studies, Computer Science Minor, Co-op
2013 - 2018

SKILLS

Coding Languages
CSS, Figma, Git, GitHub, HTML, JavaScript, MatLab, NodeJS, Python, R, React, REST API, R, Shiny, MySQL, SQL

Managing
Agile, Scrum, Budgeting, Hiring

Personal
Problem-solving, team worker, communication, independent starter, technical reporting

AWARDS

ESRI Young Scholars Award
ESRI Canada
2021

Higher Education GIS Award
ESRI Canada
2021

AAFC Instant Award
Agriculture and Agri-Foods Canada
2017

EXPERIENCE

Full Stack Developer
Sep 2020 - Present

Agriculture and Agri-Foods Canada

- Modelled complex interactions between land use and land suitability
- Developed open source user interface (UX/UI) with multi-user authentication
- Contributed to the software lifecycle, from requirements definition through engagements
- Organized large qualitative, quantitative datasets from 6 sources and Google Earth Engine
- Mentored a team of 3 for the creation of a web map portal using Geoserver and Leaflet
- Used Open Government Licence Canada standards for openness and data security
- Lead and planned stakeholder meetings improve the user experience
- Collaborate partner with the University of British Columbia, University of Manitoba, ClimateWest, Ontario Ministry of Agriculture, Climate Change Canada and more.
- Reports and technical how-to documents were produced for future use
- Co-lead the procurement and purchasing of $100k+ research equipment
- Developed specifications criteria, put out a call for bids, and reviewed all tenders, awarding the call to the successful bid.
- Hired 10+ cooperative learning students from initial job creation to final offer presentation

Stack
- Front - JavaScript (ES6+), React JS, HTML, CSS
- Back - Node JS, R, Python, REST API
- Database - MongoDB, MySQL
- Source Control - Github

Environmental Project Manager
Oct 2019 - Jul 2020

Independent Consultant

- Successfully, bid, developed and led a project proposal to create a climate action plan for the Town of Florenceville-Bristol, NB
- Managed a team of 2 to carry out an assessment actions to reduce greenhouse gas emissions and increase building energy efficiency
- Held workshops and community stakeholder events to receive feedback
- Continuous iterations were implemented as new requirements arose.
- Suggested items such as building retrofits, new LED lights, recycling program and green driver training for a potential savings of $600k+ per year and GHG emission decrease of 1756 tonnes CO_2.
- The plan recommended decreasing GHG by 21% by 2027 from 2017 levels

Researcher
Aug 2017 - Aug 2018

University of Guelph

I researched, investigated, and compared the effects of using UAVSAR data versus RADARSAT-2 data for upscaling techniques over farms in Manitoba. The research is being used to increase productivity across farm fields in Canada by 37%.

GIS and Remote Sensing Technician
May 2016 - Aug 2017

Agriculture and Agri-Foods Canada

II was tasked with assisting in researching new methods to measure changes in field soil moisture values. I used ESRI's ArcGIS software to edit, process and maintain databases for NASA' SMAP satellite. I received and AAFC-AAC Instant award for partnerships between multiple divers industrial and academic intuitions.

- I was part of an 18-day validation field campaign, aiding in collecting, training, and organizing the use of scientific monitoring devices.
- Expert knowledge was leveraged for the optimizations of route planning

Find more at mitchkrafczek.com