

DAVID RENÉ

SOFTWARE DEVELOPER

QUALIFICATIONS

- B.Sc. In **mathematical physics**, college diploma in **computer science** and **mathematics**
- Working experience in **.NET/C#, Python, JavaScript/TypeScript, CSS, HTML, Java, MATLAB**
- Personal experience working with **Node/Next, React, Tailwind, SQL/noSQL**
- Bilingual in french, advanced in german

EDUCATION

B.Sc. Honours / Mathematical Physics

@ University of Waterloo, Sep. 2018 – May 2023

- Co-op program
- Minor in astrophysics
- Minor in german

College Diploma / Computer Science and Mathematics

@ CÉGEP Limoilou, Sep. 2016 – June 2018

- Data structures, algorithms, UI, Agile, all in Java

PROJECTS

Anomaly and outlier detection in geo-data

@ SpaceApps Hackathon, 2019

- Python app to process geographical data to detect outliers
- Uses mode decomposition algorithms and geographical metadata to assign reliability scores to data records
- Won 1st place in Canada for the GO Canada challenge

EXPERIENCE

Programmer / IT Analyst

@ Shared Services Canada, Jan. 2022 – Present

- Full-stack web development in .NET/C#
- Design, deployment and management of Azure native cloud applications
- Pipelining in Azure DevOps, Databricks and business intelligence in PowerBI
- Supporting scientific user base in research lifecycle

@ Canadian Space Agency, Jan. 2021 – Aug. 2021

- Web development in Flask/Python
- Geographical data science and analysis using SCISAT-1 and Alouette satellites data

Geomagnetic Network Developer

@ Natural Resources Canada, Sep. 2021 – Dec. 2021

- Scripting in Bash and Python
- Development of a data acquisition system of several magnetometer / servers
- Data processing to detect Ottawa LRT impact on natural magnetic field

Mathematics Teaching Assistant

@ University of Waterloo, Sep. 2020 – Dec. 2020

- Differential Equations for Engineers (MATH 218) and Calculus 3 for Honours Physics (MATH 227)

VOLUNTEERING

VP Finances

@ UW Science Society, Jan. 2022 – Aug. 2022

- Managing faculty student association finances, provide and manage funding for several clubs

Coordinator

@ UW Science Orientation, Apr. 2019 – Sept. 2022

- Manage volunteer training and recruitment