DAVID RENÉ

SOFTWARE DEVELOPER

Email: davrene11@gmail.com

Website: https://davidrene.ca

SKILLS

Programming languages: C#, Python, R, JavaScript/TypeScript, Java, MATLAB, lua

Tools & Technologies: Azure, AWS, .NET, Django/Flask, RShiny, Tailwind, HTML/CSS, LATEX

Languages: French, English, German

EXPERIENCE

Programmer | IT Analyst — **Jan. 2022 – Present**
Shared Services Canada — Ottawa, ON

- Designed, developed and integrated full-stack features for a .NET cloud native solution, including a self-service deployment of Docker images to Azure App Service.
- Built and maintained a business intelligence pipeline using Databricks, Azure DevOps and PowerBI for platforms analytics used in critical management decisions.
- Supported relations with scientific user base of several hundred users in the research lifecycle.

Data Scientist — **Jan. 2021 – Aug. 2021**
Canadian Space Agency — Montréal, QC

- Developed and improved new and existing visual analysis tools in Python web applications used in scientific data analysis.
- Provided analysis of atmospheric gas composition data using SCISAT-1 and Alouette satellites.

Geomagnetic Network Developer — **Sep. 2021 – Dec. 2021**
Natural Resources Canada — Ottawa, ON

- Orchestrated several streams of magnetometer data into a data aquisition system using Bash and Python scripting.
- Modeled Ottawa's Light Rail Train's impact on the background magnetic field to provide assessment of electromagnetic pollution.

Mathematics Teaching Assistant — **Sep. 2020 – Dec. 2020**
University of Waterloo — Waterloo, ON

- Provided solutions, graded assignments, improved course notes and hosted office hours for the MATH218: Differential Equations for Engineers and MATH227: Calculus 3 for Honour Physics courses for the Fall 2020 term.

EDUCATION

B.Sc. Honours | Mathematical Physics — **Sep. 2018 – May 2023**
University of Waterloo — Waterloo, ON

- Co-operative program with a minor in astrophysics and a minor in German. Specialized in applied mathematics.

College Diploma | Computer Science and Mathematics — **Sep. 2016 – May 2018**
CÉGEP Limoilou — Québec, QC

PROJECTS

Anomaly & outliers detection in geomagnetic data — **Sep. 2019**
CSA SpaceApps Hackathon — Waterloo, ON

- Developed a Python app that uses mode decomposition algorithms and geographical metadata to assign reliability scores to geographical data records. Won 1st place in Canada for the GO Canada challenge as part of team *Beans.*