JOSHUA DESGAGNÉS

joshdesgagnes@outlook.com | +1 (204) 963-6008

EDUCATION

BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY   Burnaby, British Columbia
Advanced Diploma   May 2025
- Geographic Information Systems (GIS)

https://joshdesgagnes.github.io/gisportfolio/

UNIVERSITY OF MANITOBA – ASPER SCHOOL OF BUSINESS   Winnipeg, Manitoba
Bachelor of Commerce (Honours)   Apr 2022
- **Majors:** Accounting, Management Information Systems (MIS)

TECHNICAL SKILLS & LANGUAGES

- **Programming:** Competent in SQL and Python; working knowledge of ogr2ogr (GDAL), HTML/CSS, and JavaScript.
- **Databases & ETL:** Competent in PostgreSQL/PostGIS, Azure SQL Database, FME Form, and FME Flow; academic exposure to Oracle 19c and Microsoft SQL Server 2017.
- **Analytics & Visualization:** Proficient in ArcGIS Pro, ArcGIS Dashboards, and QGIS; working knowledge of Apache Superset, SQLPage; academic exposure to Tableau, Power BI, and R.
- **Development Tools:** Competent in Docker, Git/GitHub.
- **Languages**: Native proficiency in English and French.

WORK EXPERIENCE

CHRIS WERNER CONSULTING INC.   Winnipeg, Manitoba
Data & GIS Specialist   Oct 2025 – Present
- Designing and implementing a centralized multi-schema PostgreSQL/PostGIS database consolidating operational and geospatial data across thematic domains, replacing legacy file-based systems with role-based security and trigger-based audit logging.
- Deploying and administering a containerized data services stack (Docker) for a web application and GIS portal (GeoNode, GeoServer, MapStore2, Django), enabling web-based map publishing, metadata management, and secure data sharing.
- Building Python ETL pipelines using psycopg, SQLAlchemy, and Pandas to extract, validate, and load data from Excel, CSV, and legacy sources into PostgreSQL.
- Developing SQL-driven web application with SQLPage to replace Microsoft Access forms, delivering browser-based data entry, reporting, and ad hoc querying for a First Nations membership registry.
- Authoring a comprehensive data infrastructure technical proposal covering database architecture, data governance, migration strategy, and scalable technology evaluation.

RENTAL PROTECTION FUND   Vancouver, British Columbia
Geospatial Database Developer Intern   Apr 2025 – May 2025
- Led the design and implementation of a relational database in Microsoft Azure SQL Database using DBeaver, defining schemas, constraints, and views to integrate housing and applicant datasets.
- Built automated ETL pipelines with FME Form to ingest, validate, and load data from multiple sources into Azure SQL Database.
- Deployed interactive dashboards using Apache Superset for ad hoc querying and operational reporting.
- Translated business requirements into technical specifications, troubleshot data inconsistencies, and communicated workflows to non-technical stakeholders.

BOOKE & PARTNERS   Winnipeg, Manitoba
Staff Accountant   Jan 2023 – Aug 2024
- Analyzed complex financial datasets and prepared hundreds of financial statements and tax returns for individuals, corporations, and trusts using Excel, ensuring accuracy, compliance, and strict confidentiality.
- Reconciled client accounts at year-end, performing data validation and preparing adjusting entries to resolve discrepancies across various accounts.
- Managed multiple concurrent projects under demanding deadlines, communicating complex financial information clearly to clients and team members.

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ACADEMIC PROJECTS

INCIDENT REPORTING WEB APPLICATION   Apr 2025

https://github.com/joshdesgagnes/experience-builder-app

- Developed a full-stack web application using React, TypeScript, and ArcGIS Maps SDK for JavaScript, featuring data entry forms with validation and real-time synchronization of submitted records.
- Designed modular, reusable components supporting interactive map visualization, keyword-based filtering, and dynamic reporting of user-submitted data.

INFORMATION SYSTEMS STRATEGY   Apr 2022

- Conducted an analysis of a major Canadian transportation company's information systems, collaborating with the VP of Network Analytics & Development to produce a strategic proposal addressing technology constraints and business alignment.
- Assessed existing systems against operational requirements, identifying gaps and producing recommendations to support a planned strategic expansion.

CHESS DATABASE   Dec 2021

- Designed and built a relational database to store, query, and analyze collections of chess games for player preparation.
- Processed and transformed data from thousands of Portable Game Notation (PGN) files using Python (Pandas), performing data cleaning, normalization, and loading into structured tables for analytical querying.
- Created a GUI in Microsoft Access for data retrieval and analysis (e.g., win percentages, move orders, variation frequency), demonstrating end-to-end data pipeline and reporting capabilities.