

Donald Isaac Grimmer

Civil Engineering Student • Project Coordinator
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Profile

- Currently studying Civil Engineering at UBC-O's School of Engineering.
- Special interests in infrastructure & transportation design, business development strategies in engineering, infrastructure & disaster management
- Interested in all things technology, agriculture infrastructure, community development.

Experience

Hall Group of Companies - Vancouver Sand & Gravel Project Coordinator Intern

Coquitlam, BC
May 2024 – August 2025

- Coordinated the loading of 6000 tonne barges to capacity for material being sent out for disposal-at-sea (DAS) whilst coordinating truck traffic to optimize performance under different loading conditions.
- Procured an active wastewater treatment system to treat turbidity in dust suppression runoff to the Erosion and Sediment Control Plan (ESC) compliance limits before discharging into the Fraser River.
- Implemented the integration of automated reporting using PowerBI through an existing SQL server to aid in the access to information for the management team.
- Ensured compliance of equipment operators for barge offloading at Woodfibre LNG.
- Created an Inspection Test Plan (ITP) for the quality assurance of aggregates to CSA and MMCD-type specifications.
- Verified quantities of material to be sent for land disposal by barge and review of engineering documents for the disposal site.
- Performed purchase order validation and invoice reconciliation to ensure cost-code accuracy.
- Served as a point-of-contact for management and field crew to respond to technical issues that arose.
- Assisted the offloading of gravel barges through the operation of heavy mobile equipment and verification of quality checks in preparation of barge departure.

Pender Island Farmers' Institute Farmers' Market Manager

Pender Island, BC
April 2018 – August 2025

- Used CAD software to plan weekly layout for the farmers' market.
- Effectively communicated with relevant stakeholders such as market vendors, board members, facilities staff, and the public.
- Oversee that vendors and market adhere to BCAFM and BCCDC guidelines.
- Streamlined recurring processes such as collection of market dues and receipts by using Square as a CRM that drastically increased labour productivity for the tasks.
- Implemented POS and product catalog systems for cooperative style secondary market.
- Performing inventory checks of equipment assets and retail goods to plan maintenance and minimize shrinkage.

Farmers' Market Setup Coordinator

April 2015 – August 2017

- Provided feedback that assisted in the transition to lightweight plastic tables from aging wooden tables that improved labour productivity and increased asset storage capacity.
- Assumed role and responsibilities of the Market Manager in their absence, such as collection of market dues, manual receipt writing, and confirming future attendance of vendors.

Gulf Excavating LTD.
Equipment Operator/Labourer

Pender Island, BC
June 2017 - August 2023

- Performed routine maintenance on vital equipment systems to minimize downtime.
- Batched ready-mix concrete to specified mix designs.
- Operated excavators up to 20 tons, wheel loaders, aftermarket hydraulic attachments.

Education

University of British Columbia - Okanagan
Bachelor of Applied Science - Civil Engineering

Kelowna, BC
Expected Completion: December 2025

Projects

Design Problem of Wastewater Coagulation & Flocculation Treatment System

- Goal of replacing existing semi-passive treatment system that used chitosan socks and no sand media filter.
- Jar tests of chemicals from different water management contractors and a chemical supply company.
- Chosen solution is a two-component lease (treatment system and settling tank lease with a maintenance contract) from Company A and chemical supply from Company B.
- Targeted dosage rates of 50ppm each for the coagulant and flocculant at $\$0.30/m^3$
- Projected annual recurring costs of chosen configuration 12% lower than Company C's and 50% lower than Company D's EaaS solutions.
- Costs could be further lowered by using dry flocculant and mixing on-site, but would require further employee training and equipment acquisition.

Optimization and Design of an ATV-mounted Sterile Insect Release Device

- Tasked with improving existing system that had issues in providing a consistent feed rate, non-existent impulse control, operator health concerns, and improvised mounting system.
- Chosen solution delivered on all major deliverables and beyond with improved electronics with lower power draw, discrete feed mechanism, and improved user interface experience in an all new enclosure.

Lane Guidance Model for RC Car using Machine Learning

- Optimizing machine learning algorithms for self driving RC car with implementation of a lane guidance system.

Leadership & Activities

Pender Islands' Fall Fair
Volunteer Event Coordinator

Pender Island, BC
August 2019, 2023, 2024, 2025

- Organized a temporary self-parking lot to help alleviate parking concerns for the event.
- Coordinated volunteers for setup days, event day, and take-down.
- Served as a point of contact for up to 50 volunteers and other event coordinators.

Skills

Technical: Microsoft Excel, PowerBI, HeavyJob (HCSS), Python, MATLAB, ArcGIS, QGIS, SQL, Command Alkon Apex