

Thomas Charky

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Summary of Qualifications

Software: SAP2000, Revit, AutoCAD, STRAP, Excel VBA, Python, Java, MATLAB, QGIS, ArcGIS Online Suite

On Site: CCIL, Working at Heights, Surveying (Total Station, Theodolite and Automatic/Laser Levels), Transport Canada TSC

Laboratory: Proctors, Hydrometer, Atterberg Limits, Grain size, Concrete & Mortar Compressive Tests

Construction Management: Estimating, Subcontract Tendering, Scheduling, Project Coordination

Work Experience

Structural Engineering Assistant | Milman & Associates Limited Jan – Apr 2022 | Aug – Present

- Performed **dynamic analyses** and detailed designs for vortex shedding of a slender steel stack and unbalanced rotating machinery on suspended platforms.
- Leveraged **Excel VBA macros** to organize thousands of load combinations for a combined footing to determine governing cases.
- Produced detailed timber, concrete, and steel structural solutions for unique problems in industrial, airport and office construction.
- Implemented **GIS solutions** to improve project workflows in large scale restoration and asset management applications.
- Performed structural inspections and produced reports for bridge applications.

CAD/3D Manager, Estimator, Coordinator | Blackpool Nieman Consulting Jan 2021 – Aug 2021

- Independently developed and managed production of 3D Renders to facilitate client visualization using **Revit**, used client feedback to complete OBC designs and building permit applications with AutoCAD.
- Played critical role in managing millions of dollars of building restoration projects from initial tendering to final closeout.

Estimator and Project Coordinator | AM-TECH Electrical Sept 2020 – Dec 2020

- Won access to approximately **\$2,000,000** of work over 3 years through prequalification with the University of Ottawa.
- Saved **thousands of dollars** and **increased lead generation** in developing a brand-new website using WordPress.

Estimating Student | PCL Constructors Jan 2020 – Apr 2020

- Performed takeoffs and managed subcontract tenders for **hundred-million-dollar projects** in solar and residential departments for civil, electrical, and architectural scopes.
- Reduced takeoff time by **30%** using Microsoft Excel to insert and optimize conversion formulas.
- Ranked as a **top company co-op** (Jim Brown Award Finalist) and BEAM Award Recipient.

Field Technician | Chung & Vander Doelen Engineering Apr 2019 – Sept 2019

- Liaised with site supervisors and used engineering drawings to convey material inspection results in the construction of **multi-million-dollar projects**, including additions to the Bruce Power nuclear plant.
- Executed thousands of materials tests including standard proctors, slump tests and concrete/mortar compression tests.

Other Relevant Experience

Project Manager | Invigorate Inc. (Capstone Project) May 2022 – Present

- Led the development of a novel FRP reinforced CLT-Glulam T-beam solution informed by cutting edge academic work and case studies for a complex bridge replacement case.
- Secured **over \$1000** in prize funding by presenting solution as part of the MTE Capstone Pitch Competition.

Exterior Restoration Business | Sole Proprietorship (DBA in Process) May 2021 – Aug 2022

- Applied project management skills to efficiently quote, schedule, stage and execute multiple projects simultaneously.
- Used creativity and problem-solving skills to provide solutions to unique window screen and frame issues.

Billion Dollar Project | University of Waterloo Sept – Dec 2020

- Used problem analysis skills to identify and work to solve the key issues of the renewable energy industry.
- Reached **semi-finals** in the Quantum Valley Investments Problem Pitch competition.

Education

University of Waterloo Class of 2023

- Candidate for Bachelor of Applied Science in Civil Engineering, Term 4B.
- 4A course topics included steel and concrete structural design.
- Consistent Excellent academic standing.