

Laurie Joyekurun

647 949 0147 • McMaster University – Civil Engineering •
l.joyekurun@icloud.com

EDUCATION

Bachelor of Engineering, Civil Engineering | McMaster University

2021 - 2026

TECHNICAL SKILLS

- **Structural Design Codes:** CSA S16, NBCC
- **Structural Analysis & Modeling:** SAP2000
- **Drafting & BIM:** AutoCAD, Revit
- **Engineering Tools:** Excel, Microsoft Word
- **Other Software:** Oracle JD Edwards (procurement & cost tracking)

WORK EXPERIENCE

Project Assistant (CO-OP)– Facilities and Engineering, CN Tower, Toronto

May 2023 – August 2023

- Supported engineering-led capital projects involving **structural, mechanical, and architectural systems** in a complex existing structure.
- Assisted with condition assessments by auditing damaged flooring and identifying areas requiring urgent remediation.
- Developed detailed **scopes of work** for remediation and maintenance projects, contributing to contractor procurement and cost control.
- Prepared technical documentation and specifications for facility upgrades, including a **universal changeroom project**, presented to senior executives.
- Updated **AutoCAD drawings** for service levels to reflect current conditions and improve documentation accuracy.
- Managed procurement activities including purchase orders, invoicing, and budget tracking using **Oracle JD Edwards**.
- Created preventative maintenance protocols to improve long-term asset performance and operational efficiency.

ACADEMIC PROJECTS

• **Steel Structural Design:**

Designed steel beams, columns, and bracing members using limit states design, checking flexure, shear, axial tension/compression and interaction effects in accordance with CSA S16 and NBCC.

• **Connection Design (Bolted & Welded):**

Designed steel connections including gusset plates and tension members, checking fastener shear, bearing, net section rupture and block shear using **CISC Handbook** procedures and **Excel** calculation sheets.

- **Structural Load Analysis:**

Calculated dead, live, snow and wind loads and applied governing load combinations for ultimate and serviceability limit states to ensure code-compliant designs.

- **Lateral Force-Resisting Systems:**

Analyzed and selected efficient lateral systems, including cross-bracing, based on structural demand, constructability and load path clarity under wind and seismic effects.

- **Structural Modeling & Analysis:**

Created 2D and 3D structural models in **SAP2000** to determine internal forces, deflections, reactions and validated results through independent hand calculations.

- **Structural Drawings & Drafting:**

Produced structural plans, sections, and details using **AutoCAD** and **Revit**, coordinating structural elements with architectural layouts and level constraints.

VOLUNTEER EXPERIENCE

Heartland Church Connected | Children Ministry | Group Leader

2015 - 2020

Heartland Church Connected | Student Ministry | Youth Leader

2020 - 2024