

Nicolas Zhu

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EDUCATION

University of Toronto

Bachelors of Applied Science. Civil Engineering, GPA : 3.45

Toronto / Canada

Graduation June 2025

Skills

LANGUAGES: English (native), Chinese (fluent), French (working)

TECHNICAL SKILLS: HTML, CSS, Java, MATLAB/ Simulink, Python, AutoCAD, Sketch Up, ArcGIS, SAP2000

RELEVANT COURSES: Transportation Performance, Urban Transportation Systems.

PROFESSIONAL EXPERIENCE

IVIVia Blooms

Drafting Intern

Barrie, Ontario

May 2022 – Aug 2022

- Drafted and updated existing layouts for homes and undeveloped land on AutoCAD
- Researched and drafted with accordance with the Municipal city of Barrie and prevented expenses of \$12,000
- Coordinated collaboratively with the team on site as well as the Project Manager and the landowner.
- Prepared designs and relevant information for contractors that would complete the project

University of Toronto Aerospace Team

ADCS Hardware Integration member

Toronto, Ontario

Sept 2021 – Present

- Developed Code to model space movement and different celestial bodies
- Procured ADCS components and selected different components that best fit the mission
- Modelled ADCS components through Simulink while accounting for external forces and fields

ADCS Structures Design

- Drafted preliminary drawings for the interior of the satellite using AutoCAD and Solidworks.
- Evaluate weight and mass of specific components and their structure in Solidworks.
- Mounted and modelled components for different cases Solidworks

University of Toronto Concrete Canoe Team

Concrete Design Executive

Toronto, Ontario

May 2022 – Present

- Collaborated with a team to design concrete mix to ASTM standards and to achieve a density under 1000kg/m³
- Conducted laboratory tests to find different breaking points of concrete to ensure a strong structure
- Procured and worked with vendors to buy 17 products required for light concrete mixtures

Step Design Inc

Microhouse Project

Toronto, Ontario

Jan 2022 – June 2021

- Worked as the project manager with engineering students to design a microhouse with STEP Design Studio Inc.
- Modelled, drafted and designed a micro-house while adhering to the local zoning and building laws.
- Optimised energy efficiency of the building through building science practices.

PROJECTS

Steel Design Project

- Collaborated in a group with other students to design a 3 story building following York region building codes.
- Created and drafted relevant connection details regarding the beams and columns for the entire structure

Philadelphia Water Metabolism Report

- Investigated the Municipal System and infrastructure in the city of Philadelphia
- Explored the different avenues of water use and retention within the city in both residential and industrial sectors
- Designed green solutions to stormwater surges in the city due to the mixed nature of their sewer systems

VOLUNTEERING EXPERIENCE

Sienna Senior Living

Volunteer

Bradford, Ontario

Feb 2018 – Jan 2019

- Supported residents in outings and tasks pertaining to day to day life
- Setup technology for senior use (VR)
- Coordinate events for seniors with the recreation team at the care home (birthday parties, etc.)