

# Nathan Tang

mechanical engineering student

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🔗 <https://github.com/nthnt>

## skills

- Proficient in **AutoCAD**, **Solidworks**, **XFLR5** and familiar with **Fusion360**
- Familiar with **3D printing**, **Arduino**, and **RC Electronics**
- Excellent proficiency in **Java**, **C++**, and **MATLAB** with extensive **OOP knowledge**
- Proficiency in **HTML**, **CSS**, **Bootstrap**, and **JS** alongside **Git** and **Visual Studio Code**
- Strong communication and project management skills gained through managing nationwide program

## projects

### Radio Controlled Flying Wing

- Designed and built a flying wing using engineering design and self-taught knowledge of aerodynamics, electronics, and circuits
- Used XFLR-5 and MATLAB to perform analysis on aerodynamics of design and ensure smooth flight

### Standing Desk Prototype

- Designed and 3D modelled a standing desk prototype in Solidworks in a team
- Analyzed engineering specifications and constraints based on research, anthropometric data, and lift mechanisms for most ergonomic desk configurations

### Conway's Game of Life

- Used JS to design Conway's game of life, a mathematical infinite game producing unique patterns

### Dr. Goose Chrome Extension

- Collaborated with a team to develop a Chrome Extension which was built to ease learning at home due to COVID-19
- Water and break reminders and goal setting functions
- Built using JS, CSS, and Chrome Storage API

## experience

### CAD Design Intern

Exceed Robotics | Thornhill, ON | July 2019 - Aug 2019

- Applied engineering design processes to prototype an Arduino controlled bionic finger
- Modelled prototypes in Fusion 360 and 3D printed them for use in summer camp activities for over 40 youth

### Professional Programs Coordinator

Engineers of Tomorrow | Orangeville, ON | May 2021 - Aug 2021

- Coordinated Engineers -In-Residence Program, connecting 300+ engineers with classrooms across Canada to facilitate STEM outreach
- Managed daily communication tasks to ensure smooth operation
- Used Python, JS, CSS, and HTML to create a web tool that streamlines and automates future engineer-classroom pairs ([match.eir.ca](http://match.eir.ca))

### Freelance Illustrator

Toronto, ON | August 2019 - Present

- Managed and illustrated commissions for over 100 clients
- Applied self-taught illustrating styles and techniques to create logos and commission illustrations
- planned and recommended illustration solutions for clients based on expectations and visual goals

## education

### University of Waterloo

Candidate for Bachelor of Applied Sciences, Mechanical Engineering

- 3.88 cumulative GPA

## achievements

- 2019 Regional Gold Medalist, Skills Canada Competition Robotics
- Schulich Leaders Scholarship Nominee
- University of Waterloo, President's Scholarship of Distinction
- Artwork published in Toronto Public Library's 2018 "Young Voices" magazine