

# Collin Town

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## EDUCATION

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### Western University

*Bachelor of Engineering Science, Software Engineering – Dean’s Honour Roll*

London, ON

Sept. 2021 – May 2025

## EXPERIENCE

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### Part-time Software Engineering Researcher

*Northern Tornadoes Project - Western University*

Sept. 2023 – Present

London, ON

- Working alongside research team to develop visualization of tornado debris
- Developing an ArcGIS Pro integration that integrates CUDA processing to speed up calculations

### Summer Software Engineering Research Intern

*Northern Tornadoes Project - Western University*

May 2023 – Aug. 2023

London, ON

- Developed NTP Insights, a platform for sharing NTP data with the public that delivers on average 500 MB per event (360 images, LiDAR scans)
- Built using Next.js and a Node.js backend, the platform supports 4 GB large image uploads, the processing of large (5 GB+) point clouds and running social media analysis searching for up to 50 tokens
- Created an LLM classification model with 89% precision when detecting tornado sightings in Canada on social media websites. Successfully ran analysis on over 25 events in the 2023 season
- Collaborated with 3 other researchers to tailor the platform to their projects

### Programming Instructor

*Western Engineering FIRST*

Sept. 2021 – Present

London, ON

- Mentor an all-girls FRC robotics team with more than 20 students
- Teach OOP principles, motor control algorithms, and programming practices
- The team received the “Innovation in Control Systems” award in the 2021 competition season

### Sailing Instructor

*Fanshawe Sailing School*

May 2019 – Aug. 2023

London, ON

- Provided adult and children instruction in class and on the water
- Taught classes spanning from 10-40 students per group session
- Established strong working relationships with managers, students, and parents
- Certified CANSail Level 1/2 Instructor

## PROJECTS

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### wikiNow – Hack Western 9 | *Next.js, Tailwind, Flask, NLP, Stable Diffusion*

Nov. 2022

- Earned the “Best Use of Prompt Engineering” award
- Creates How-To guides for any question, by using NLP and LDM during runtime
- Backend manages image creation using a queue based system to allow for multiple requests at once
- Implemented multi-threading to decrease the time per request by 50%

### Social Tornado Tracker | *Next.js, Tailwind, Flask, Twitter API*

May. 2022

- Won the First Year Design Competition at Western Engineering
- Worked in a team of 4 to create the project in under 3 months and presented to a panel of judges
- Able to process Tweets automatically using the Twitter API saving NTP employees hundreds of hours
- Flask backend to process Tweets and a Next.js frontend to display the results

### Mucy | *Flutter, iOS, Android, Firebase*

Mar. 2021

- Published application on both, App Store and Google Play Store
- Built using the BLOC design principle to decrease development time and increase maintainability
- Collaborated with teammates to create the UI/UX using Adobe XD, and successfully translated it to Flutter
- Utilized Swift & Java to create localizations and decreased start-up time on both iOS and Android by 23%.

## TECHNICAL SKILLS

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**Languages:** Java, C#, Dart, Python, C/C++, JavaScript/TypeScript, HTML/CSS, SQL (Postgres)

**Frameworks:** Flutter, React.js, Node.js, Express.js, Flask, FastAPI, Prisma ORM

**Developer Tools:** Git, Linux, Unity, Figma/Adobe XD, MongoDB, MySQL, Postgres, Heroku, Docker, Gradle