





# Rachelle DeMan

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## Education

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**McMaster University** | Bachelor of Science in Computer Science, Hamilton, ON Sept 2021 – April 2025

- Deans' Honour List with a **4.0** GPA.
- Excelled at courses such as Data Structures and Algorithms, Principles of Programming, and Software Development.

## Experience


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**Technical Executive** | DeltaHacks, Hamilton, ON Nov 2022 – Present


- Created frontend for a mobile-responsive application portal and landing page utilizing React, Typescript, Nextjs, and Tailwind CSS within an **agile work environment**.
- Worked in team of 12 developers to build MLH web applications used by over **1000 participants** worldwide.
- Independently responsible for applicant status, QR profile scanning and QR linking frontend.

## Hackathons


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**Consensus**  | Hack the North | *Python, Matplotlib, sklearn, numpy, pandas* Sept 2022

- Conducted analysis on product reviews using **machine learning** to generate a summarized user opinion for optimizing quality assessments providing invaluable information to consumers and vendors.
- Utilized k-means clustering and Co:here to group reviews by their semantic relevance for evaluation accuracy.
- Used MatPlotLib to plot user reviews in generated semantic groups for clean user interaction.

**HackDex**  | StormHacks | *JavaScript, React, React Router, SCSS, HTML, CSS* Feb 2022


- Received **Audience Choice Award** for inventiveness and practicality.
- Won first out of 89 projects for Dream Big and Create More Cheers with AB InBev.
- Led front-end development for guided hackathon project platform using React and SCSS for user accessibility.

**StockPile**  | DeltaHacks 8 | *React Native, JavaScript* Jan 2022


- Won first out of 92 projects for **best use of Google Cloud**.
- Created stock market simulator to aid beginners in comprehending stocks in a highly interactive environment.
- Formulated plans to utilize GCP Recommendations AI to suggest articles based on user actions, and GCP App Engine to host the frontend.

## Passion Projects

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**Crochet Blog**  | *JavaScript, React, CSS, HTML* June 2022 – Present

- Developed a web blog to document and share crochet patterns.
- Used Styled-components library to create flexible and reusable CSS for mobile compatibility.
- Produced graphs using Recharts based on data set information to display time investments and project difficulty.

**Cave Generation**  | *Python, Godot, GDScript* May 2022 – Present

- **Procedurally generated** levels with varied shapes, platforms, pathways, enemies, collectables, and decor.
- Made use of physics bodies and the **A\* pathfinding algorithm** to randomize room locations and tunnels for replayability and unpredictability.
- **Optimized full generation** to enable over 100 room completions in **under 4 seconds**.

**Pathfinder Ranger** | Girl Guides of Canada, Oshawa, ON Sept 2015 – Sept 2021

- Earned team award in 2016, 2017, 2018, and 2019 as a result of planning and managing 1-3 day long events with **over 150 attendees** in Girl Guides.
- Received the Trailblazer Leadership award, the highest reward a ranger can receive, through **leading community service projects**, and substantial volunteering.
- Awarded Cookie All Stars in 2016, 2017, 2018, and 2019 for **extensive individual fundraising** of over 80 cases (960+ boxes), with personal goal of 15% increase per year.

## Technical Skills

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**Languages:** Python, JavaScript, Java, TypeScript, HTML, CSS, SQL, GDScript

**Tools:** Visual Studio Code, PyCharm, Godot, Git, Figma

**Libraries/Frameworks:** React, Tailwind, Styled-components, Headless UI, daisyUI, cv2, Matplotlib