# Tushar Billakanti

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## **EDUCATION**

#### Memorial University of Newfoundland

Bachelor of Science (Honours)

St. John's, NL

Sep 2020 - Present

Major in Computer Science; Minors in Business Administration.

Dean's List Recipient 2020-21.

Languages: Python, Java, C, SQL, JavaScript (ES6), HTML, CSS, VBA, Git.

Frameworks: React, Angular, Tailwind, TypeScript, Flask, Django, Postman, Node.js, GraphQL, Figma, Firebase.

Certifications: Font-end Certification from University of Michigan (Coursera), Front-end Libraries (Full Stack Open).

#### **EXPERIENCE**

# Front End Developer Intern

St. John's, NL

Carnegie Learning - Zorbits Math

May 2023 - Present

- Developing and maintaining CL dashboard, contributing to 10 projects focused on new features implementation and internal testing tools. Also a lot of bug-fixing, code refactoring to ensure smooth re branding of the product.
- Designed and implemented reusable Angular components, services, and modules, enhancing code scalability and maintainability by 25% in key feature like student performance reports, teacher resources, district and school profiles.
- Implemented analytical strategies by leveraging Pendo, to track user interactions with features withing the product, enabling a 40% improvement in product decision making with the help of quality user data.
- Tech stack: Angular, TypeScript, Git, Node.js, Transloco, Tailwind CSS, Pendo, jsPDF

#### **Full Stack Developer**

St. John's, NL

DIAG Lab - Memorial University

May 2022 - Sept 2022

- Worked in a team developing issue/ticket management system for a machine learning lab detecting medical images.
- Tech stack: React, Postgre SQL, Django Flask, Docker.

## **PROJECTS**

#### MUN Ask\_Bot - Personal Project

Dec 2022

- Designed & developed a web app which answers all questions related to program information. It is trained on the university calender, uses OpenAI's neural language model's embeddings endpoint and completions API like ChatGPT.
- Model is fine tuned to remember conversations and chat like a human being, giving 85% accurate answers in 3 secs.
- Tech Stack: React, Python, TypeScript, Tailwind CSS, Flask, OpenAI API.

## **EPFO Fetch API - Personal Project**

Nov 2022

- Developed a script to fetch data bypassing CAPTCHA to help a startup download public data, including over 100,000 companies, boosting their data reporting project timeline to under 2 months and reducing manual work by 95%.
- Tech Stack: Python, py-Pandas, Postman API.

#### Collection of AI projects - Academic Project

Oct 2022

- Built efficient path finding algorithms to solve mazes; developed genetic algorithm to solve Sudoku; built Connect 4 game artificial algorithm using alpha-beta pruning and mini-max algorithm.
- Revamped knowledge on JavaScript, path finding algorithms, reinforcement learning, genetic algorithms.

#### Collection of computer vision projects - Academic Project

Sept 2022

- Developed and implemented image processing filters, convolution filters, image quality boosters and compressors.
- Revamped knowledge on Java, Python, OpenCV, TKinter, Pandas, Numpy, Swing.

# King Domino Game - Collaborative Group Project

Apr 2022

- Developed a board game as a part of software engineering class with difficulty levels and game AI and graphics.
- Revamped knowledge on UML class diagrams, Java, Swing, use cases, software design patterns, JavaFX.