# SIDDHANT TOPIWALA

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## SUMMARY

Computer engineering student with extensive experience in many different aspects of programming, as well as experience in team-based projects and project management. Knowledge of many different languages with completed projects including independent work. Very proficient in GUIs through app development. Experienced in OOP, scripting, as well as creating and training AI.

## EDUCATION:

**Bachelor of Applied Science** | University of Toronto St. George        *SEPT 2020—EXPECTED MAY 2025*

Currently in the ECE major with an AI minor and music certificate. With courses focusing on software development, algorithms & data structures, operating systems, AI, databases, and general engineering design in industry. Also includes digital electronics and signals/communications courses.

## EXPERIENCE

**Front End Software Development (React/TS/ArcGIS)** | JANA Corporation        *MAY 2023—SEPT 2024*
- Developed and delivered an Esri ArcGIS based web application for important clients like Enbridge.
- Worked in a professional agile/scrum environment using Jira.
- Used React with TypeScript and Esri ArcGIS JS APIs/REST services to create a reliable application to manage critical assets, data, surveys, and surveyors relating to natural gas.

**Cross-Platform App Development (Flutter/PostGres)** | The STEAM Project        *MAY 2022—SEPT 2022*
- Developed the basis of a Portfolio app using Flutter and PostgreSQL as backend. Used Git to manage the code.
- Worked with a graphic designer to create on-brand but user-friendly structure for the app and its pages.
- Involved weekly reviews with supervisors on progress and feasibility of the project as well as demos with Android Studio.

## PROJECTS

**Map App Software Design and Communication (C++/OSM)** | University of Toronto

Proposed and implemented a complete mapper software using C++, OpenStreetMap (OSM), and gtk in a team of 3. Conducted State of the Art Reviews on current GIS software to discover relevant features to include. Extensively used Git to manage the project and communicate updates to teammates. Created an associated business pitch with app.

**KTaNE Modding (C#/Unity/HTML)** | Independent

Created, implemented, and published a mod for the game "Keep Talking and Nobody Explodes". Involved created a module on unity, and using C# scripts to implement the module on the base game. Also created a "manual page" with HTML, using CSS/Java files given with the game for style and formatting.

**Classifying Pokémon Types with AI (Python/PyTorch/Colab)** | University of Toronto

Created a CNN to classify Pokémon types in Google Colab with a team of 4. Involved consolidating and cleaning data from many sources. Processing images through transformations and data augmentation. Creating training, validation, testing datasets and loaders to feed into our own model which used embeddings from GoogLeNet.

**Audio Plugin Development (C++/JUCE)** | Independent

Learned to create audio plugins using the JUCE framework. Involved programming the audio processing the plugin would require (filtering sound, changing gain or quality), as well as creating a GUI through the UI framework in JUCE.

## SKILLS

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| **Problem Solving:** | **MS Office Suite:** | **Research:** |
| Understanding of how to develop solutions using iterative and rigorous engineering processes | Experience working with word, ppt, and in-depth knowledge of excel functions like FILTER, VLOOKUP, Pivot Tables | Familiar with engineering design cycle, CDS, state of the art reviews. Familiar with PoC's and Discovery in Agile |
| **Agile/Scrum:** | **Reliability:** | **Teamwork:** |
| Understanding of professional software development environment | Experience meeting hard deadlines set by high-stakes clients like Enbridge. | Many experiences in university and professional cross discipline teams |

**Software List:** C, C++, C#, JS/TS, Python, Dart, PostGreSQL. | React, Flutter | GIS        **Languages:** English, French, Gujarati