Bikramjit Narwal

Computer Engineering at the University of Toronto

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Qualifications

Languages
- C/C++
- Python
- Verilog
- JavaScript

Front End
- HTML
- CSS
- Bootstrap
- React

Databases
- MySQL

Technology
- MATLAB
- Microsoft Licensed Software
- AutoCAD
- LaTeX
- Visual Studio

Hobbies
- Soccer
- Blogging
- Video Editing

Achievements

- **Hack the North 2019 1st Place in SurveyMonkey Developer Challenge – Won the Hack the North SurveyMonkey API challenge** for the best and most creative usage of their API
- **Sabre Award –** Issued to only 2 Sandalwood Heights students for actively being involved in all 4 years of high school

Experience

Software Associate | *AGI Transportation* — May 2019 – August 2019
- Used **SQL to store data** of trucking equipment & other facility inventory.
- Assisted in the design of the company website & **programmed front-end functions**.
- Utilized Microsoft Word & Excel to create & update records, ensuring accuracy & validity of information.

Design Engineer | *ioTSpire* — January 2019 – May 2019
- Worked on a system that organized food delivery orders that were displayed on various tablets from different food delivery applications.
- **Prototyped a mechanical stand** that organized these different tablets that would originally create disorder on the POS desk.

Product Manager & Designer | *Tanvas* — September 2018 – December 2018
- **Utilized Tanvas hardware technology** to design 3 effective solutions that assist visually impaired users to track heart rate with a fitness app.
- Created 3 prototypes using **AutoCAD** to help visually impaired individuals track their heart rate.
- Demonstrated leadership & organization by scheduling team meetings & highlighting expectations for upcoming weeks.

Projects

Hack the North Dev Challenge | *Python, HTML/CSS, JS, Pyramid, ImageAI* — September 2019
- **Created a web application** that accepts an image of the user's hand using the computer webcam and detects whether someone gives a thumbs up or a thumbs down and sends this information to a SurveyMonkey survey through an API call.
- **Implemented a Machine Learning Model** which can be utilized by end-users to automate the submission of survey responses.
- Used the SqueezeNet algorithm to generate the **image recognition model** & trained the model using Supervised Learning with 500+ images.

AI Asteroid Space Game | *C++* — November 2019
- Wrote a program that **receives sensor data** for incoming asteroids and directs phasor fire to destroy them before they hit the ship
- **Extended a game server** that simulates the asteroids and the actions of the Starship as it navigates through the belt of asteroids

Personal Music Library | *C Programming* — April 2019
- Maintained information about a personal music library by having each node containing three strings: a song's name, its artist, & its genre.
- The data in the personal music library is stored in memory with the use of a **linked list** with one list node per song.

Tic-Tac-Toe Game | *C++* — September 2019
- **Developed a server** that is responsible for detecting mouse clicks and converting the window coordinates at which the mouse is clicked into game board coordinates & is also responsible for graphically displaying the game board in a window.
- The logic of the game accepts & validates user input and interacts with the server using an object called gameState.

Education

University of Toronto — 2018 – 2023
Candidate for Bachelor of Applied Science, Computer Engineering