

# Xyron Brual

Whitby, ON | LinkedIn: [www.linkedin.com/in/xyronbrual](https://www.linkedin.com/in/xyronbrual) | 905-242-2946 | xyron.brual@gmail.com

## EDUCATION

### Ontario Tech University

*Bachelor of Engineering (Honours)*

*Software Engineering with Highest Distinction (GPA: 4.02/4.3)*

2000 Simcoe St N, Oshawa, ON, Canada

Sep 2018 - May 2022

- **Relevant Courses:** Design and Analysis of Algorithms, Data Structures, Web Programming, Linux Systems Programming, Operating Systems, Software Design and Architecture, Software Quality, Computer Networks, Data Management Systems
- **Awards:** President's Honour's List, OPG Entrance Scholarship, Honourable George Vari Scholarship

## SKILLS

**Languages:** Python, HTML, JavaScript, CSS, PHP, C, C++, C#, Bash, Perl, Java, SQL, Lua, R

**Technologies:** Git, Node.js, Flutter, MySQL, Flask, Django, React, OpenCV, TensorFlow, Streamlit, Unity Engine, Blender, Microsoft Office, Linux, Windows, Amazon Web Services

## PROJECTS

### Little Lemon

*Languages/Technologies: React, Node.js, JavaScript, HTML, Tailwind CSS*

August 2023

- Developed a virtual Mediterranean restaurant interface with an intricately designed front page and an interactive table reservation system using React
- Implemented dynamic reservation scheduling using a mock API, generating random dates and times for an engaging user experience
- Enhanced UI aesthetics by implementing TailwindCSS

### LetsCook

*Languages/Technologies: JavaScript, Node.js, React, Bootstrap, ChatGPT*

June 2023

- Developed LetsCook, a dynamic web application using React, Bootstrap, and ChatGPT API to enable personalized recipe generation based on user-provided ingredients.
- Implemented an intuitive user interface for a seamless and interactive cooking experience.
- Utilized AI technology to revolutionize the way people approach cooking and meal planning.

### Notion Agenda Wallpaper

*Languages/Technologies: JavaScript, Node.js, Notion, HTML, CSS*

June 2023

- A Node.js project automating dynamic agenda generation as a wallpaper.
- Utilized Notion's API to query tasks from a designated agenda database on Notion.
- Developed HTML to image conversion functionality and implemented Windows service configuration for periodic updates.

### Floppy Bird

*Languages/Technologies: Python, PyGame, Pandas*

April 2023

- Developed a Flappy Bird clone for PC utilizing Python's PyGame module.
- Implemented score-saving functionality using Python's Pandas module to record and store high scores.
- Demonstrated proficiency in game development, Python programming, and data handling.

### Queen Square Employee Manual

*Languages/Technologies: Canva*

Jan 2023 – Mar 2023

- Made use of the Canva platform to develop a handbook for new incoming staff
- Documented the basic tasks and responsibilities of new staff in order to reduce training time
- Provided multiple appendices that allowed both new and older staff to refer to any information that they have forgotten

### Stocks Recommendation System

*Languages/Technologies: Python, HTML, CSS, JavaScript, PHP, SQL, Django, Bootstrap, Tensorflow*

Sep 2021 – Mar 2022

- Created a web application using the Django framework that allowed users to keep track of stocks and make buy/sell/stay decisions based on our predictive algorithm and trading strategies
- Developed a neural network using Long Short Term Memory cells that has a strong correlation of 0.86 when predicting S&P 500 stock prices
- Implemented various famous strategies to assist users in making their decision

## **Packet Sniffing Firewall**

*Languages/Technologies: Python*

*Jan 2022 – Mar 2022*

- Produced an application that increases the security over the network while providing users information on incoming packets
- Developed an algorithm that examines packets in the transport layer and examines if they have a registered DNS request to indicate that they are safe

## **Stocks R Us**

*Languages/Technologies: Dart, Python, Flutter, Flask, MVC Architecture*

*Sep 2021 – Dec 2021*

- Utilized the Flutter framework to create a stocks tracker mobile application using the Model-View-Controller architecture
- Constructed an SQLite database to keep track of users and their personalized favorites
- Created a Python API using the Flask framework to retrieve stock information from Yahoo! Finance's services and for data management

## **Facial Recognition System**

*Languages/Technologies: Python, OpenCV, PySimpleGUI*

*Jan 2021 – Mar 2021*

- Created a facial recognition system using Python and its libraries such as OpenCV and face\_recognition that has a 99% accuracy of identifying "known" users
- Gathered the reference images and information of "known" people that the OpenCV module uses to compare against faces in other images and live scans

## **Cars Canada (Car Rental Website)**

*Languages/Technologies: HTML, CSS, JavaScript, PHP, SQL, Bootstrap*

*Sep 2020 – Dec 2020*

- Managed a group for the design and development of a working car rental website
- Utilized MySQL, PHP and JavaScript to create databases, and handle personal and payment information
- Auto-generated HTML pages using PHP based on the relational database information, reducing the need for excessive page creation

## **K-Means Color Clustering**

*Languages/Technologies: Python, SciKit, Streamlit*

*Jul 2020 – Aug 2020*

- Developed a program using Python and the SciKit library that uses K-Means clustering for the purpose of quantizing an image's color scheme
- Designed the program so that when an image and a select number of clusters are given, then a quantized image and a histogram on the proportion of the most prominent colors

## **Endless Battle**

*Languages/Technologies: Unity Engine, C#, Blender*

*Jul 2020 – Aug 2020*

- Utilized the Unity Engine and various assets to develop an endless 2D platforming and fighter game that can be played on a PC platform
- Designed the player using character assets and animations in order to have a smoother experience while playing
- Created a procedural level generator using a 10x5 boolean array in order to create unique placements of platforms for each new level
- Designed enemies with difficulties marked as easy, medium and hard with varying movement and attack speeds, health, and attack damage

## **The Great Plateau**

*Languages/Technologies: Unity Engine, Blender*

*Aug 2019 – Sep 2019*

- Recreated a section from the popular Nintendo game Legend of Zelda Breath of the Wild
- The scene was made in Unity using multiple tools to create the terrain and textures and multiple prefabs for the environments such as trees, grass, water, snow, fog, etc.

## EXPERIENCE

### Cognixia JUMP Program

Remote

*Data Analyst/Developer Intern*

*Apr 2023*

- Developed technical skills in various data manipulation and visualization techniques under the coaching of Cognixia experts
- Coordinated multiple team-oriented projects using Git, Python, Object-Oriented programming and Visual Studio Code
- Trained in various technical and soft skills reinforcing the understanding of the Agile framework and Database Management Systems

### Queen Square Doctors

**Brampton, ON, Canada**

*Medical Administration*

*May 2022 - Dec 2022*

- Collaborated with a team of doctors and acted as an intermediary to their patients concerning admissions, prescriptions and medical claims
- Ensured that patients were properly taken care of during phone calls, check-ins and allocation of patient rooms
- Assisted management in the coordination of workflow including the handling of the medical staff's documentation and equipment

### Tip-Top Creamery Ltd.

**Whitby, ON, Canada**

*Assistant Store Manager/IT Technician*

*Sep 2018 – April 2022*

- Programmed cash registers and websites, and installed security cameras for monitoring
- Maintained and troubleshoot monetary systems to ensure smooth workflow
- Developed the organization's main website to help customers understand the services provided
- Performed product inventories, handled various purchases, and managing deliveries
- Managed the renovation and interior fit-out of the store

## CERTIFICATIONS

- |  |                    |
|--|--------------------|
| • Meta Front-End Developer                       | <i>August 2023</i> |
| • Devops on AWS                                  | <i>July 2023</i>   |
| • HackBytes Hackathon Certificate                | <i>June 2023</i>   |
| • Google IT Automation with Python               | <i>May 2023</i>    |
| • Google Data Analytics Professional Certificate | <i>Feb 2023</i>    |
| • Data Analysis with Python                      | <i>Jan 2023</i>    |
| • Machine Learning with Python                   | <i>Jan 2023</i>    |
| • Scientific Computing with Python               | <i>Jan 2023</i>    |
| • Aconex Accredited Level (Specialist)           | <i>Jan 2023</i>    |
| • Aconex Accredited Level (Professional)         | <i>Jan 2023</i>    |
| • Aconex Accredited Level (Associate)            | <i>Jan 2023</i>    |