

Xyron Brual

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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, Figma, Vercel

PROJECTS

TypeMaster

Languages/Technologies: Python, Django REST, React, Bootstrap, Figma, Vercel, AWS EC2

October 2023

- Created a typing test service that evaluates typing speed and accuracy by providing users with quotes to type.
- Implemented user account functionality to track progress and view typing history.
- Designed the user interface in Figma and brought it to life using React and Bootstrap.
- Developed the backend using Django REST framework with models representing typer, quotes, and records. Hosting on AWS EC2 ensures scalability and availability.

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

Data Analyst/Developer Intern

Remote

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

Medical Administration

Brampton, ON, Canada

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.

Assistant Store Manager/IT Technician

Whitby, ON, Canada

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

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| • Generative AI with Large Language Models | <i>November 2023</i> |
| • 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> |