

# DYLAN PATRASCU

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## EXPERIENCE

### Technical IT Assistant

May 2023 - August 2023 & May 2024 - August 2024

Ministry of the Solicitor General

Hamilton, ON

- **Automated network drive** mapping using **Python** to smoothen the user experience, leading to a drastic decrease in user error
- Automated the **metadata lookup** for machine disposal through a Python script, further optimizing the inventory management workflow
- Debugged a regression in a legacy **VBScript program** to support new Windows 11 machines
- Provided in-court tech services in time-sensitive and high-pressure situations
- Communicated technical concepts to non-technical individuals, enabling clients to understand and utilize software solutions effectively

### Python Tutor

December 2024 - March 2025

Self-Employed

- Taught **Python** programming concepts to beginners with little to no experience, building their skills from the ground up while applying good programming principles
- Delivered personalized Python lessons, covering fundamental programming concepts such as **data structures and object-oriented programming** as well as an introduction to **data science**
- Simplified complex computer science principles, including **recursion and algorithm efficiency**, to build a strong technical foundation for students

### Customer Service Representative

September 2019 - August 2021

Farm Boy Inc.

Burlington, ON

- Professionally interacted with customers, providing assistance, clarifying inquiries, and resolving any issues promptly and satisfactorily
- Conducted regular temperature and inventory checks throughout each shift, ensuring compliance with safety standards and maintaining accurate stock levels

## PROJECTS

### VR Marine Biology Capstone | Unity VR, C#, GitHub, Agile

September 2024 - Present

- Collaborated in a team of five to design and develop an **educational VR simulation game** to teach marine conservation and ocean research techniques
- Created engaging minigames for satellite tagging (**time-based challenge**), eDNA sampling (**interactive puzzle**), and BRUV deployment (**world interaction**) to simulate real-world marine biology research activities
- Implemented **accessibility features**, including captions for deaf users and colorblind-friendly environments
- Engaged in **ongoing communication with project supervisors** to ensure a realistic representation of marine biology research
- Applied **Agile development practices**, including creating **storyboards**, **user stories**, and **UML diagrams**, managing tasks via **GitHub Projects**, and using **GitHub** for version control and collaborative development

### Shift Racer | Unity 3D, C#, Github

December 2024

- Developed a **ready-to-ship** street racing game in **Unity C#**
- Designed a modular radio system using **Scriptable Objects**, where songs change depending on the car's gear
- Implemented an **AI waypoint tool**, allowing for modular car traffic at run-time using prefabs and a spawner
- Implemented a slow-motion effect where the player and surroundings are slowed at different time scales, including a trail effect
- Managed project development using **GitHub** and tracked development using **GitHub Projects (Jira equivalent)**

## TECHNICAL SKILLS & CERTIFICATIONS

**Programming Languages:** Java, Python, JavaScript, HTML/CSS, C/C++/C#, SQL/PHP, R, GDScript, Unreal Engine Blueprint.

**Developer Tools:** Git, JSON, JUnit, Jira, Bitbucket, VS Code, PyCharm, Eclipse, MongoDB, Godot, Unity, Unreal Engine, Blender, Aseprite.

**Spoken Language:** Fluent English, Fluent French, Fluent Romanian, Conversational Japanese.

**Certifications:** IBM Z Xplore - Concepts, IBM Z Xplore - Advanced, Certificate of Studies in French Immersion (FSL).

## EDUCATION

### University of Western Ontario

September 2021 - Present

Bachelor of Science in Computer Science (**Honours**)

London, ON

Minor in Game Development

- **3.7 GPA** - Dean's Honour List
- Expected Graduation **April 2025**
- Dedicated member of the **Game Development Society (GDS)** & **Fashion & Lifestyle Society (F&LS)**

## SMALLER PROJECTS

<b>Micro Movers (GDS Micro-Jam 2025)</b>   Unity2D, C#, Github, Aseprite	January 2025
<ul style="list-style-type: none"><li>Developed a <b>2D puzzle game</b> in <b>Unity</b> in <b>48 hours</b> in a <b>team of two</b>, where players collect and shrink objects to fit them in a moving truck</li><li>Implemented <b>player controller</b> and <b>player-environment interaction</b>, <b>level design</b>, and created all <b>art</b> and <b>user interface</b> using <b>Aseprite</b></li><li>Won <b>Judge's Choice for Best in Art</b> for visual design and presentation</li><li>Used <b>GitHub</b> for version control and tracked development using <b>GitHub Projects (Jira Equivalent)</b></li></ul>	
<b>MongoDB Deep-Dive</b>   MongoDB, React, CSS	December 2024
<ul style="list-style-type: none"><li>Conducted an in-depth architectural analysis of <b>MongoDB</b>, including data flow, scalability mechanisms, and performance optimization for dynamic applications</li><li>Developed and deployed a <b>movie database</b> case study utilizing MongoDB to demonstrate robust API integration, dynamic data handling, and real-time search functionality</li><li>Explored and tested <b>MongoDB's</b> sharding, replication, and indexing features to optimize performance in high-concurrency environments</li></ul>	
<b>Website for Fashion &amp; Lifestyle Society</b>   HTML, CSS, JavaScript	November 2024 - Present
<ul style="list-style-type: none"><li>Developed a <b>ready-to-use</b> and <b>aesthetically curated website</b> for the University of Western Ontario's Fashion &amp; Lifestyle Society</li><li><b>Webpages are dynamic</b>, page layouts and font sizes change as device dimensions change</li><li><b>Meets W3C's standards</b> for <b>HTML</b>, <b>CSS</b>, <b>JavaScript</b> structure, and accessibility</li></ul>	
<b>Language Localization Tool</b>   Unity Editor, C#	November 2024
<ul style="list-style-type: none"><li>Developed a <b>dynamic localization tool</b> in <b>Unity C#</b> using <b>Scriptable Objects</b> with two serialized lists for managing keys and values, supporting scalable multilingual text management</li><li>Changes made to keys are consistently reflected across all languages, maintaining <b>synchronization</b> and translation accuracy</li><li>Implemented a <b>custom editor window</b> to efficiently add, edit, and maintain languages and key-value pairs</li></ul>	
<b>Mazerunner</b>   Unity3D, C#	October 2024
<ul style="list-style-type: none"><li>Developed a <b>ready-to-ship</b> maze game in <b>Unity C#</b></li><li>Implemented an <b>animated third-person player controller</b> that orients movement based on the camera position</li><li>Implemented a key <b>inventory system</b>, where the player collects keys to open doors in the maze</li><li>Implemented a <b>grid-snapping tool</b>, allowing for easy creation of the environment</li></ul>	
<b>Shield</b>   C++, Python, Google Cloud Storage, Jira	December 2023
<ul style="list-style-type: none"><li>Developed a Smart Home desktop application similar to Amazon Alexa</li><li>Integrated voice commands using <b>Python</b> for hands-free operation</li><li>Implemented facial recognition using <b>OpenCV</b> for real-time detection</li><li>Integrated <b>motion detection</b> by comparing greyscale input frames</li><li>Built an <b>alert system</b> and <b>mobile notifications</b> via IFTTT for real-time email alerts</li><li>Created smart light control using Philips Hue's API for various control options</li></ul>	

## NOTABLE ROLES

<b>Spring Fashion Show Co-Director</b>	September 2023 - May 2024
<i>Fashion &amp; Lifestyle Society (University of Western Ontario)</i>	London, ON
<ul style="list-style-type: none"><li>Organized a high-fashion Fashion Show with <b>220+ attendees</b></li><li>Collaborated with designers to create 20+ handmade runway looks using <b>ethically sourced fabrics</b></li><li>Curated soundtrack and coordinated <b>live music</b> for the event</li><li>Managed <b>venue booking</b>, <b>scheduling</b>, <b>sponsorship</b>, <b>budgeting</b>, and <b>advertising</b></li><li><b>Led a team of 20</b> to execute the fashion show's theme and vision</li></ul>	
<b>Housekeeper</b>	May 2022 - August 2022
<i>Hampton Inn and Suites</i>	Burlington, ON
<ul style="list-style-type: none"><li>Provided personalized and prompt assistance to guests, addressing their specific requests with efficiency and effectiveness</li><li>Maintained a high standard of cleanliness and hygiene by cleaning and disinfecting rooms at an optimal pace</li><li>Efficiently arranged and restocked shelves, ensuring a tidy and orderly presentation of products</li></ul>	