Karol Loskot

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Skills

- HTML | CSS | PHP | C# | Java | Python | R | JavaScript | C | MySQL | Linux | Git | SDLC | CI/CD | Unit Testing | Test Driven Development | OOP | Unity 3D | Unity VR | Game Development | ROS | Gazebo
- Frontend | Backend | Software Engineering | Machine Learning | Artificial Intelligence | Robotics | Virtual Reality | English, Polish

Education

Bachelor of Computer Science	**University Of Nottingham**	*Nottingham, UK*	**09/2020 - 07/2023**

- BSc (Hons) Computer Science awarded 2:1

A-Levels	**William Perkin Sixth Form**	*London, UK*	**09/2018 - 05/2020**

- Computer Science (A) NEA Project: Developed a **financial simulator** allowing the user to create an account with an initial capital with which they could 'buy and sell' different trading instruments in real-time using **Yahoo finance API**. Physics (B), Mathematics (B)

Projects

Online Multiplayer Puzzle Game Group Project — 2023

- Focused on **SDLC, CI/CD, Test-Driven Development** and industry standards such as **ISO 9000**, developed using **Unity, C#** and **Netcode**.
- We assigned ourselves various positions, I was assigned the role of **lead developer** and **lead tester.**
- To improve development, I ran sessions outside of meeting time where I would pass on my knowledge to my project partners to make sure they grasp the fundamental concepts of game development. This resulted in more efficient development and more robust code.

Autonomous Robot Vaccuum Cleaner — 2023

- Using **ROS (Python)** and **Gazebo,** developed a fully autonomous robot capable of effective **self-navigation** through **SLAM** and **P controller**, **perception** such as **computer vision**, LiDAR, ultrasound and **decision making** such as **pathfinding (A*)** and **object recognition.**
- Later, for a separate project, I developed a simulation of a robot vacuum cleaner capable of similar functionality with the aim of **optimizing** its performance. Developed in **Python** with the use of **Tk GUI** as the interface for the simulation.
- I experimented on how the hyperparameters of the components (such as LiDAR sensitivity, algorithms for pathfinding, map resolution) affected the performance of the robot. I used the amount of dirt collected and number of collisions as the metrics.

Virtual Reality Educational Experience — 2022

- A yearlong group project which educated the user about the UK magistrate court system using **UnityVR** and **C#.**
- Our **stakeholder** gave us only baseline information from which as a team we would come up with **requirements and specifications** which we later conveyed, implemented and tested.
- I lead the **gathering of requirements** and developed the **user interface**, ensuring the game is accessible using subtitles and the HUD is friendly and informative. To complete this effectively, I utilized **SCRUM, Agile** and **Git** to maintain organization and metricize our progress.

Improvement of Game 'Breakout' — 2022

- **Fixed bugs**, **improved legibility** and **extendibility**, **organized software architecture** and **implemented new features** to the game 'Breakout' written in **Java** of which the code was broken and very badly written.
- Focus on **iterative development**, **version control**, **code refactoring** and **automated testing**.
- As an extension to the game I implemented a high-score board maintained using **SQL** and various powerups such as 'ball multiplier'.

Experience

Shift Manager (Service Pro)	**Itsu**	*Notting Hill, London*	**02/2024 - Present**

- Rapidly promoted to **manager on duty,** I am responsible for the wellbeing and organization of my team, satisfaction of customers and quality of service and food. Regularly awarded '**best customer feedback branch**' and have an average mystery shopper score of **>90%**.

Host\Waiter	**Black Horse Eastcote**	*Pinner, London*	**06/2020 - 10/2020**

- Lead large events such as VIP guest events, Birthdays, Stag-dos, Engagement Parties. Responsible for customer experience of groups of up to 25 people.

Others

- **Imperial Maker Challange:** Learned: **Design thinking (prototyping), 3D printing, laser cutting, electronics, CAD, coding.** Developed a works-like and looks-like prototype of a 'Fitbit dog collar' that would monitor your pets exercise throughout the day. Developed on an **Arduino** using **Java**. **(2019)**
- **Imperial Gold Crest Award**: Group project where we wrote a scientific paper titled: 'Biomechanics of computer gaming' and presented it at Imperial College London. We gathered data through monitoring the hand joint movement of the subject, focusing on aspects such as mouse ergonomics and types of mouse grips. **(2019)**