

# JAY STRAIN

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## SUMMARY

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Graduate in Computer Science with studies focussed on programming, AI training, web apps, mobile apps and teamwork. 2 years of professional IT experience including server management, Python and JavaScript software engineering, database management and networking. Looking for an opportunity to put my technical and professional skills to use in a challenging and innovative environment.

## EDUCATION

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**BSc Computer Science (2:1) – Loughborough University** **September 2019 – July 2025**

**Key Modules:** Object Oriented Programming, Web and Mobile Applications, Data Mining and Machine Learning, AI Systems and Cyber Security.

**Final Year Project:** Developing a Data-Driven, Moddable Video Game.

## PROFESSIONAL WORK

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**Rebellion Beer Company – IT Administrator** **September 2022 – August 2024**

The Rebellion Beer Company is a local brewery supplying beer to over 400 local pubs as well as to customers via their on-site shop, drive through and website.

- Managed upgrading the company's account management software from a local to cloud server as well as writing custom Python software to handle moving data between it and stock tracking software.
- Set up and maintained VLANs on the network to keep staff and guest data separate while managing local DHCP and DNS servers.
- Prepared retail tills to be used at a 4-day event including backups for internet access and VPNs back to the company site.
- Transformed sales database data based on several internal product categorization methods, then created customized Power BI reports for each member of the administration team based on their needs.
- Wrote a custom Chrome extension to add quality of life features requested by account managers to improve their workflow and reduce mistakes when creating orders.

## PROJECTS

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### Rebellion Beer Chrome Extension

Repository link: <https://github.com/vtilde/Brewman-Extension>

A Google Chrome extension developed to add features to the web portal for the company's accounts managing system. The extension brought back features that users were used to from old versions of the system as well as added new features to the site. These features were made to be consistent and reliable as they were used by account managers while they were taking orders through the phone, and helped reduce errors and speed up repetitive actions.

### Degrees of Separation Web App

App URL: <https://degrees.vtil.dev>

Created a personal web app using Flask, SQLite and Git inspired by the Oracle of Bacon – Entering two Youtubers will find the closest path between them using entertainment groups and collaborations to link creators together.

### 2025 GMTK Game Jam

Created a complete game using the Godot Engine in a group of 3. The jam theme was "Loop", and the game was a top-down shooter where movement was based on simulated gravitational pulls from different planets. The specific features I worked on included:

- Modular, data-driven weapon system that used custom resource files, allowing the other developers and players to easily add their own weapons to the game.

- Projectiles that would update to take into account the player's stats when the projectile was created.
- Custom items that had different effects suggested by players such as shockwaves, upgradable shields and the ability to ram into enemies.

## TECHNICAL PROFICIENCIES

<b>Python</b>	Wrote custom Python software using SQLite to transfer data between existing sales and customer management software, connecting to databases and cloud REST APIs. Developed programs shared with other employees to generate reports from these systems, while handling custom filters and regularly added new products.
<b>Data</b>	Experienced with SQLite and MySQL in commercial services and personal web hosted projects. Designed and implemented ETL pipelines to standardize and combine sales data from multiple sources. Have created Power BI Reports including custom DAX code.
<b>AI</b>	Trained object recognition and tracking models to run on robots to follow and keep in view any selected person. Developed and refined models to accurately categorize satellite terrain photos into one of seven different types of land usage.
<b>Web</b>	Worked in a group of 4 other students to create a web-based issue tracking site. Written in PHP with Laravel, with a focus on efficient data transfer to and from an SQL database. Created a Google Chrome Extension with userscripts using JavaScript and JQuery to add extra information to pages and set custom default values for dropdowns. Designed a frontend for self-hosted web apps using HTML, CSS and JavaScript.
<b>Servers</b>	Handled maintaining the servers for the business, including Active Directory Domain Controllers, Network servers and retail management servers. Managed cloud servers for Azure AD, stock management systems, antivirus and VPNs. Experienced with setting up headless Ubuntu servers, and have repurposed old mini-PCs and Raspberry Pis with VPNs and Docker containers.
<b>Other</b>	<b>Game Development:</b> Godot + GDScript <b>Mobile Applications:</b> Java, Android Development Studio <b>Git and GitHub</b>

## SKILLS

<b>Teamwork</b>	Experience with troubleshooting tech issues and teaching new software to all ages within the Rebellion Beer staff. Wrote software within teams while delegating clear roles for each member. Also worked in a team to develop a game within 4 days for the GMTK Game Jam, including keeping teammates updated on progress in regular meetings.
<b>Learning</b>	Gained familiarity with the wide variety of systems being used at the Rebellion Beer Company to be able to troubleshoot issues and recover from errors. Enthusiastic about learning new and innovative technologies, especially with opportunities to put them into practice.
<b>AI</b>	Able to use AI assistants such as Copilot to increase efficiency of writing code and developing functional software prototypes.
<b>Other</b>	Fluent in Japanese

## REFERENCES

Available upon request.