

Fridalí Gaias

Student & Research Assistant

Portfolio: fridaligaias.github.io
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I am a soon-to-be BSc Computer Science graduate from the University of Westminster, currently predicted for First-Class (1st) Honours, with a deep-seated passion for the intersection of Artificial Intelligence and human-centric Design & Development.

SKILLS

Tools and Languages	TF.js, JavaScript, HTML, CSS, Python, Git, Java, Node.js, Git, SQL, Postman, Jupyter Notebook, MATLAB, Simulink, Kali Linux tools, Tkinter
AI, Systems, and Security	Model Integrations, LLMs, Machine Learning techniques, AI Methodologies & Ethics, OOP, Database Management, Software Development Principles, UX/UI Design, Digital Marketing, Cybersecurity Principles
Communication	English, Spanish, Italian

TECHNICAL EXPERIENCE

Role | Research Assistant **02 2026 — Present**
University of Westminster *London, UK*

- Project: AI for Better Learning: Automating Organisation of Learning Concept Maps to Improve Student Understanding
- Develop and evaluate a conversational AI system chat bot for academic knowledge modelling and student learning support.
- Work with LLM pipelines and graph-based methods to structure and validate complex content.

Project | womyn.network : A Security-First SPA Implementing Edge-Based Defensive AI **09 2026 — Present**

- Designed and developed womyn.network, a security-first Single Page Application (SPA) built to redefine the digital space for women.
- Integrated defensive, human-centred AI into the client-side architecture to enable proactive safety and social features.
- Implemented an Edge Computing model, allowing real-time, on-device processing for enhanced privacy and responsiveness.

Project | Autonomous Robot Navigation using Reinforcement Learning | Grade: 91 **2025/6**

- Implemented a Q-learning algorithm (Python/NumPy) for autonomous navigation in unknown environments.
- Developed a dynamic maze parser for configurable simulations and optimal pathfinding.
- Evaluated performance against an MLP model, analysing limitations of supervised learning.

Project | Risk-Aware Pedestrian Navigation System, A* Pathfinding & GIS | Grade: 89.75 **2025/6**

- Built a custom A* search algorithm in Python to optimise walking routes based on distance and safety risk.
- Designed a heuristic combining geospatial distance with weighted crime severity scores.
- Integrated OpenStreetMap data with 1M+ Police.uk crime records using efficient spatial indexing.

Project | Dynamic Control System Modelling (MATLAB/Simulink) | Grade: 92 **2024/5**

- Modeled a non-linear two-tank fluid system using MATLAB and Simulink.
- Designed a closed-loop PID controller for autonomous level regulation.
- Conducted stability analysis using Bode and step response methods.

Project | Medical Survival Prediction System | ML Classification & Regression **2024/5**

- Built classification and regression models to predict patient mortality and survival time.
- Implemented k-NN, Logistic Regression, and Decision Trees with GridSearchCV optimisation.
- Developed a classifiers and applied rigorous preprocessing and validation.

Project | SKY Health Check Django Python Application **2023/4**

- Developed a responsive, user-focused full stack platform using Python and Django.
- Implemented core user flows and interaction logic, enhancing usability and overall user experience.
- Collaborated effectively within a team, taking a leading role in planning, organisation, and UX/UI design.

EDUCATION

Bachelor of Science (Hons) in Computer Science, *University of Westminster* **2022—2026**
Predicted: First-class Honours (1st), Thesis: Engineering a Security-First SPA: Implementing Edge-Based Defensive AI for a Female-Centric Platform

Fully Funded Scholarship on the Cognizant AI Pathways Programme **2026**
Winner of a fully funded place on the APMG Artificial Intelligence Practitioner course. The program includes an Tech4Good placement with Cloud Crew, where I apply my technical skills to deliver pro-bono solutions and projects for charities & NGOs.

HONORS, AWARDS, & ACTIVITIES

Agile Software Development: Transforming Your Organization Certificate Issued 2026
Python Code Challenges for Object-Oriented Programming Certificate Issued 2026
Simulink Onramp | MathWorks 2024