

# MARIA GONZALEZ HERRERO

Colchester CO2 8GY · +34 689 683 975 · marygonzalezherrero@gmail.com

## PERSONAL STATEMENT

Computer Engineer with a Master's in Computer Networks and Security, passionate about cybersecurity and artificial intelligence. Competent in Python, penetration testing, and machine learning, with practical experience building intelligent security tools. A motivated and adaptable professional eager to contribute to innovative projects while continuing to expand technical expertise.

## EXPERIENCE

### Programming, Robotics & 3D Printing Teacher

Jan 2024 - Jun 2024

*The Creative Minds Education, Madrid*

- Delivered coding and robotics workshops using Python, Arduino, and 3D design tools.
- Introduced students to computational thinking and real-world tech applications.

### 3D Bio-printing Lab Assistant

Oct 2023 - Mar 2024

*ARIES, Universidad Nebrija, Madrid*

- Designed and debugged scripts for automated GCODE generation of 3D biocomposite structures.
- Provided technical support for research in bio-printing workflows.
- Applied problem-solving skills to optimise code for experimental setups.

### IT Risk Auditor

Jul 2022 - Jul 2023

*Santander Bank, Madrid*

- Developed and implemented automation tools for complex IT risk audit processes.
- Supported the Technology Risk division in digitalising audits across multiple departments.
- Contributed to reducing manual audit workload and improving detection of IT vulnerabilities.

## EDUCATION

### MSc Computer Networks and Security

Oct 2024 - Oct 2025

*University of Essex, Colchester*

### Master's in Banking and Financial Markets

Jul 2022 - Jun 2023

*Universidad CUNEF, Madrid*

### BSc in Computer Engineering

Sep 2018 - Sep 2023

*Universidad Nebrija, Madrid*

## PROJECTS

### Glitch\_ai - AI-Powered Pentesting Tool

- Master's dissertation project enabling automated web security testing.
- Full-stack system (Python backend + Firebase authentication + Flutter frontend).
- Integrated Mistral AI for vulnerability detection and intelligent mitigation reports.
- Remote server integration to bypass system limitations for non-sudo users.

### SanTelmo App - Field Notebook for SAT San Telmo

- Cross-platform Flutter app (iOS, Android, Web) for managing agricultural activities.
- Firebase-based cloud storage and user management system.
- Currently in use by SAT San Telmo for real-world field data tracking.

### Neuroscience Project - U-Net Model

- Developed ML pipelines for dendritic spine detection in neuroimaging.
- Automated segmentation algorithms for neurodegenerative disease research.

---

## SKILLS

Python, Flutter/Dart, FastAPI, PyTorch, MySQL, Microsoft 365 (advanced) · C++, Java, JavaScript/Typescript, GraphQL, Node.js, SQLMap, Nikto, image segmentation, model fine-tuning, MongoDB, Firebase, Postman, Git (intermediate) · Nessus, Sublist3r, Hydra, Dmitry, Docker, WhatWeb, Power BI (novice)

---

## LANGUAGES

Spanish (native) · English (intermediate)

---

## HONOURS & AWARDS

**TFG Excellence Award** – *Universidad Nebrija (2024)*: Recognised for outstanding thesis on algorithmic image segmentation for neurodegenerative disease detection.

---

## CERTIFICATIONS

**IELTS Certificate (English B2)** – 2024

**Diploma in Digital Transformation (IoT, Cloud, Big Data, Cybersecurity)** – IBM (2019)

---

## VOLUNTEERING

**Emergency Support Volunteer** – *Fundación Jiménez Díaz Hospital, Madrid, Spain (2019–2020)*

**Psychiatric Hospital Volunteer** – *Hermanas Hospitalarias, Palencia, Spain (2016)*

---

## LINKS

[GitHub](#)



[LinkedIn](#)

