

MARIA GONZALEZ HERRERO

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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](#)

