Maria Diaz Alba

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PROFILE

Motivated by a strong interest in integrating a professional journey in cybersecurity and artificial intelligence with a background in forensic investigation techniques to address modern challenges. Eager to apply expertise in practical settings creating innovative solutions with positive societal impact.

EDUCATION

Applied Artificial Intelligence - Internet of Things | Master of Science   *August 2024 - July 2025*
Florida International University (FIU), Miami, FL
- Acquired hands-on experience in deep learning models (CNNs, RNNs, LLMs) and transformer architectures for solving real-world challenges in computer vision and NLP.
- Gained expertise in Machine Learning and Generative AI, including deploying solutions for training, fine-tuning, and inference in IoT applications.
- **Certificates**: Microsoft Certified: Azure AI Fundamentals (AI-900) | Azure Big Data (DP-900)

Forensic Sciences and Technologies | Bachelor's Degree   *August 2020 - July 2024*
University of Alcala (UAH), Madrid, Spain
- GPA: 3.75/ 4.0
- **Thesis project**: **OSINT Tools for Social Media Investigations**
  - ✓ Analyzed and evaluated 9 tools for identifying illicit actors and monitoring illegal activities on Telegram.
- **Honors**: ERASMUS Mobility Program (Scholarship) study 6 months at *Université de Lausanne*, *Switzerland.*

WORK EXPERIENCE

TRC Informatica S.L, Madrid, Spain   *March 2024 - July 2024*
AI Security Solutions Developer - Internship
- Worked with cyber intelligence team to implement security measures based on threat hunting and leak detection.
- **Key project: Credential Risk Assessment Tool**
  - ✓ Led research, design, and development of a tool that integrates Artificial Intelligence to assess risk levels for credentials detected in Telegram data leaks. Applied machine learning algorithms to create a predictive model and deployed it in a custom web application for graphical risk assessment, using Python as main language.
  - ✓ Enhanced security alerts accuracy, warning of around 20 leaked credentials daily with their severity score, prioritizing analysis and boosting evaluation efficiency on 80%.

BlueMath Academy, Madrid, Spain   *October 2020 - December 2023*
Mathematics Teacher
- Mentored students by designing and refining personalized study plans, improving final marks by 20%.

CONFERENCES

- **CNN-CERT (National Cryptologic Center) Cyberdefense Conference**   *November 2024*
  "Development of a Telegram tool for detecting exfiltrated passwords." – Madrid, Spain

TECHNICAL SKILLS

Programming Languages: Python (Pandas, Sklearn, Tensorflow, Keras, Pytorch, PySpark, Matplotlib, Seaborn, Dash)
Operating Systems: Windows | Linux
Software: Microsoft Office (Word, Excel, PowerPoint) | Power BI | Tableau | GitHub | VS Code | Recorded Future
Hardware: Raspberry Pi | Arduino

LANGUAGES

- English (Advanced)
- French (Advanced)
- Spanish (Native)