

# Fran Cortés

[LinkedIn](#) | [francordel.com](#) | [fran.j.cordel@gmail.com](mailto:fran.j.cordel@gmail.com) | [GitHub](#)

## Experience

<b>AI Researcher Engineer Visitor</b>	<b>IBM</b>	<b>Dublin, Ireland</b>	<b>05/2025 – 08/2025</b>
• Contributed to academic research and the development of a <b>red teaming</b> system targeting <b>LLMs</b> , focusing on identifying vulnerabilities and evaluating model robustness.			
<b>AI   Cybersecurity Researcher</b>	<b>Universidad de Murcia</b>	<b>Murcia, Spain</b>	<b>10/2024 - Current</b>
• AI Researcher Engineer focused on <b>Federated Learning</b> and <b>Cybersecurity</b> applied to IoT, leveraging <b>Large Language Models</b> and advanced <b>AI</b> techniques for vulnerability identification and <b>penetration testing</b> .			
• Contributed to <b>academic research</b> and the development of secure, privacy-preserving machine learning systems in collaboration with interdisciplinary teams, under the supervision of Prof. Antonio Skárneta and Prof. José Luis Hernández Ramos.			
<b>Specialist Software Engineer</b>	<b>Vodafone</b>	<b>Málaga, Spain</b>	<b>09/2023 – 10/2024</b>
• Developed microservices using <b>Java Spring Boot</b> , <b>MongoDB</b> , <b>Apache Kafka</b> and <b>Docker</b> , while adhering to <b>agile</b> methodologies and industry best practices while deploying new features into production.			
• Led the technical <b>hiring</b> process for new graduate engineers, including designing technical scenarios and interview questions.			
• Mentored our internship engineers to create a final project, simplify the DB budget management process across portfolios using power app while building a <b>chatbot</b> as an extension.			
• Proposed and designed using <b>figma</b> a frontend application to track our service orders and help to clarify our demos.			
<b>Deep Learning Engineer Lead</b>	<b>Bemyvega</b>	<b>Murcia, Spain</b>	<b>12/2022 - 05/2023</b>
• Led the <b>AI</b> team in developing <b>real-time transcription</b> systems using <b>NLP</b> and <b>deep learning</b> techniques, including <b>LLMs</b> . Analyzed and selected appropriate models for each use case, resulting in high-quality transcriptions.			
<b>AI Software Engineer   CEO CO-Founder</b>	<b>MiSintaxis</b>	<b>Murcia, Spain</b>	<b>09/2019 - 09/2023</b>
• Led the creation, design, <b>development</b> and <b>strategy</b> of the <b>number one app</b> in the world of syntax teaching, with more than <b>85,000 downloads</b> all around the world			
• Applied <b>Natural Language Processing</b> techniques for Spanish language processing. Conducted <b>fine-tuning</b> of the Bloom and GPT2 model on the Ancora corpus, resulting in impressive F1 metrics for Spanish <b>constituency parsing</b> . Using <b>Hugging Face</b> , <b>PyTorch</b> , <b>Python</b> and <b>AWS</b> to deploy it. Design and implement an architecture based on <b>AWS</b> services.			
• Designed and implemented scalable <b>APIs</b> and background workers to develop this mobile app.			
• Used android studio with <b>Java</b> and <b>XML</b> at first and then led the migration to flutter in order to create a multiplatform app.			
• Recruited 1 designer, 3 software engineers.			
• Used the <b>lean</b> methodology to create a minimum viable product and implemented the <b>agile</b> methodology with SCRUM using Jira.			
• Managed the business side, including legal issues, branding, recruiting, fundraising, external communications and networking.			

## Projects

- **Movie Recommendation System:** Created with my colleague a hybrid system using **content-based**, **collaborative-based** and **Knowledge-based filtering** using **Java** ([Github Link](#)) (2/2022)
- **TURBINE: Before going to college,** I created a 3D mobile video game for **Android** using **Unity 3D** with **C#** and **Blender**. The game was available in the play store for free. Link to [YouTube Gameplay \(07/2018\)](#)
- **ANALIZANDO:** Created a syntax teaching app in high school at the age of 15 in order to help students prepare for exams. Used **Android Studio** and developed it with **Java** and **XML**. The app was available in the Play Store, and it had more than 30,000 downloads (09/2016)

## Education

<b>Bachelor of Computer Engineering with Honors</b>	<b>Universidad de Murcia</b>	<b>Murcia, Spain</b>	<b>09/2019 - 07/2023</b>
• Major in Computer Engineering. GPA of 8.6, this is in the top 1% of the university.			
<b>Erasmus-Computer Engineering</b>	<b>Politechnika Wrocławska</b>	<b>Wroclaw, Poland</b>	<b>09/2021 - 02/2022</b>
• Major in Computer Engineering. Studied abroad in Poland for one semester. All classes were in English.			

## Research

- **Cortés-Delgado, F. J., Márquez Campos, E., Hernández-Ramos, J. L., Skárneta, A., Latif, S., Djenouri, D., Krenn, S., Puiu, A., & Vizitiu, A.** (2025). *Enhancing security and privacy in federated learning for distributed systems: The REMINDER approach*. In *Proceedings of the Global IoT and Edge Computing Summit (GIECS 2025)*. Springer. Accepted, forthcoming.

# Fran Cortés

[LinkedIn](#) | [francordel.com](#) | [fran.j.cordel@gmail.com](mailto:fran.j.cordel@gmail.com) | [GitHub](#)

## Skills

---

- Natural Language Processing | Deep Learning | Hugging Face | PyTorch | Python
- Java Spring Boot | Docker| JavaScript | HTML | CSS | C++ | C | MongoDB | MySQL | AWS | Git | SCRUM | Unit Testing | Cucumber | BDD
- Management | Microservices | Artificial Intelligence | Full-Stack
- English, Spanish, French – *All professional proficiency or above*

## Awards

---

- **Extraordinary Final Degree Project Award:** Receive recognition for my final project. Applied **Natural Language Processing** techniques for Spanish language processing. Conducted **fine-tuning** of different **LLMs**. Design and implement an architecture based on **AWS** services.
- **Extraordinary High School Award:** Received a recognition for passing every subject of my final year of **high school with Honors**.
- **First place** in multiple **startup competitions** and **regional contests** with my startup, **MiSintaxis**.
- **Awarded scholarships** to take courses in **business administration** and **management**.

## Others

---

- **Volunteered** as a mentor for international students in my city.
- Performed Tech **Talks** in different universities and in different high schools.