JAVIER **FERNANDEZ**

Data scientist | ML Engineer | AI researcher

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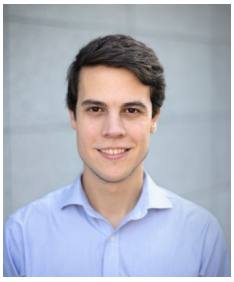

Data scientist at Intelygenz (Madrid) and AI research assistant at Cross Labs (Tokyo)

Skills

Programming languages	Python, C/C++, C♯, SQL
Libraries and Frameworks	PyTorch, Keras, Scikit-learn, Pandas, Spark, Hugging Face, Flask, MLServer
Databases	Snowflake, MongoDB
Environments	Conda, Pipenv, Poetry, Visual Studio Code, Git
Operating systems	Mac OS X, Windows, Ubuntu
Other	Docker, PowerBI, Unity, LaTeX, Pack Office(Word, Excel, PowerPoint)

Experience

Currently – April 2022 | **Data Scientist | ML Engineer, Intelygenz, Madrid (Spain)**
- E-commerce smart warehouse assistant for monitoring
  - Integration of AI-based recommendations
  - ML Server API architecture and development
  - CI/CD pipeline with GitHub actions

Python · PyTorch · ML Server · Databricks · Docker · Azure DevOps · GitHub CI/CD

April 2022 – April 2021 | **Data Scientist, Intelygenz, Madrid (Spain)**
- E-commerce smart warehouse assistant for monitoring
  - Development of ETLs and integration with relational databases
  - Define the metrics and recommendations along with the stakeholders for our product
  - Product Owner role when required
- Personalized Academic Research Paper Recommendation System
- Regression for number of pallets estimation
- Unsupervised image anomaly detection

Python · SQL · Snowflake · Databricks · Data Factory · Azure DevOps · PowerBI · NLP · Forecasting

April 2021 – May 2019 | **Data scientist, Cross Compass, Tokyo (Japan)**
- Supervised ECG-based arrhythmia detection
- Unsupervised anomaly detection for a turbine and a paper machine
- SOTA models for EEG-based emotion classification systems
- Combining EEG signals and Deep Learning for Expert Classification

Python · PyTorch · 1D CNN · 2D CNN · LSTM · XGBoost

Currently – April 2020 | **AI research assistant, Cross Labs, Kyoto (Japan)**
- Cross-subject EEG-based emotion recognition
- Emotion-driven interactive storytelling
- Optimizing lockdown policies for COVID-19
- Studying human perception-based color

Neuroscience · Affective computing · ALife · Interactive storytelling

July 2017 – September 2015 | **Robotics research assistant, Centre for Automation and Robotics CSIC, Madrid (Spain)**
- Integrating 3D reconstruction in virtual reality
- Development of walking gaits for an hexapod robot

Python · C++ · ROS · Gazebo · Unity · 3D Reconstruction

Education

2019 - 2020 Postgraduate Brain-Science Training Program at RIKEN Research Institute (**Japan**)

2017 - 2019 Master of Science in Engineering
- Keio University (**Japan**)
- Specialization : Robotics

2016 - 2019 Master en Industrial Engineering)
- Universidad Politécnica de Madrid (**Spain**)
- Specialization : Automation and Electronics

2012 - 2016 Bachelor of Industrial Engineering at Universidad Politécnica de Madrid (**Spain**)

Languages

Spanish	●●●●●
English	●●●●●
Japanese	●●●○○

Strengths

- Leadership experience
- Collaboration talent
- Communication skills
- Self-motivation
- Multitasking

Main publications

- 2022 - Emotion-Driven Interactive Storytelling : Let Me Tell You How to Feel
- 2021 - Cross-subject EEG-based emotion recognition through neural networks with stratified normalization
- 2017 - Integrating 3D reconstruction and virtual reality : A new approach for immersive teleoperation

Main blogs

- 2022 - Introduction to Ensemble Methods in Machine Learning
- 2021 - Attention in computer vision
- 2020 - The statistical analysis t-test explained for beginners and experts

Projects

Through the Looking-Glass : Building an Interactive AI Experience 2019

https://collab.t-kougei.ac.jp/5th-exhibition/ Blog Post

Through The Looking-Glass lets viewers immerse themselves in the inner mechanics in a dynamic and interactive way. We built our AI to apply a Multi-Style Transfer to a live video feed to show bursts of activity, color, and movement when visual input is received. The viewer can see the image deconstructed and passed through the neural network, through style filters, and finally, reconstructed in a completely new style, all in real-time.

Personal interests

Hobbies : clarinet, writing, movies, traveling

Sports : cross fit, football, running, ski

Interests : volunteering, international programs, multicultural organization