

Théo Fuhrmann



profile

Currently pursuing a master's in **Sound and Music Computing** at Universitat Pompeu Fabra, I bring a solid foundation in **machine learning** and **computer vision** from my previous role at Silt, a digital identification startup. I hold a degree in **Computer Science** from the Polytechnic University of Catalonia (UPC), with a specialization in Artificial Intelligence and algorithms. I have a mix of solid academic training and practical experience, and I enjoy working with others to take on challenging, creative problems.

contact

theositges@gmail.com
theofuhrmann.github.io
Github: theofuhrmann
LinkedIn:
theofuhrmann

languages

Spanish (native)
French (native)
Catalan (native)
English (C1, fluent)

programming languages

Python, C, C++, Java,
JavaScript, YAML, R,
Bash/Zsh

machine learning

WandB, PyTorch (+
Lightning), Sklearn,
Tensorflow, Pandas,
Pillow, OpenCV

back-end

Django, PostgreSQL,
REST APIs

cloud based technologies

AWS, Docker, Firebase

music

Piano, Ableton

education

2024–Pres	Master's in Sound and Music Computing	Universitat Pompeu Fabra (UPF)
2018–2022	Degree in Computer Science Specialization in Computation (AI, algorithms, data science and logic)	Universitat Politècnica de Catalunya (UPC)
2016–2018	Scientific-Technological Baccalaureate With honors	IES Vinyet, Sitges, Barcelona

experience

Oct-Oct 2022-24	AI Specialist in Computer Vision <i>Silt</i>	Barcelona, Remote
<ul style="list-style-type: none">Engineered neural networks using convolutional layers and known backbones with PyTorch and monitored their performances with WandB.Developed ML models for multiple identity documents (national IDs, passports, driving licenses, etc.), selfie, and selfie video recognition.Generated multiple synthetics datasets (MRZ images, IDs and MRZs with organic overlays, etc.) for data augmentation.Improved the accuracy of the previous anti-spoof model by developing an image recapture detector using the aforementioned datasets, while also expanding the spoof categories.Performed multiple back-end and MLOps tasks, such as integrating ML/LLM models with the back-end infrastructure and optimizing the company's ML lifecycle.		
Feb-July 2022	Full-Stack Developer <i>Discoverfy - SaaS Company</i>	Barcelona
<ul style="list-style-type: none">Designed and developed brand new front-end and back-end features following Agile and Scrum methodologies.Troubleshooted API data, UI, and UX inconsistencies using PostgreSQL, Node.js and React.Integrated Shopify installation methods to run the product on the Shopify platform.Implemented a new interface for the product's landing page.		

- June-Dec 2018 **3D Printing Instructor** Sitges, Barcelona
Sitges PC
- Ran classes on how to use Tinkercad and Slic3r, a 3D modeling software program and a 3D slicing engine, respectively.
 - Instructed students on the 3D printing process and techniques.
 - Assembled the communal 3D printing machine.
- Sep-Jun 2017-18 **Certified LEGO Robotics Instructor** St. Pere de Ribes, Barcelona
Temps de lleure
- Created and organized lesson plans on LEGO WeDo 1.0, LEGO WeDo 2.0, and Scratch.
 - Taught 6 to 10 year old children how to build and program LEGO robots.
 - Engaged students in solving environmental and technological issues through robotics.

projects

- Feb-June 2022 **Cybervulnerability Exploitability Classifier** UPC
Final Thesis
Trained various machine learning models with gathered CVE data to predict the potential exploitability of cybervulnerabilities
- June 2020 **Portfolio Website**
Developed a custom Processing animation
- February 2019 **Voice-Sex Recognition Classifier** UPC
Found patterns given various voice features to recognize the sex of the speaker using neural networks and other machine learning models

extracurricular courses

- February 2019 **Introduction to Machine Learning** UPC
Learned how different ML models worked and applied them using Python and Tensorflow
- February 2018 **Cybersecurity** UPC
Learned the main cybersecurity flaws, attack vectors, and how to avoid them