Ananías **Hilario**

Software Engineer · AI/ML Engineer · Data Scientist

English (Fluent) | Spanish (Fluent) | French (Advanced) | Hebrew (Basic)

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«If I am not for myself, who will be for me? And since I am for myself: what am I becoming? And if not now, when?»

Summary

I am an AI/ML Engineer with three years of experience in the field, and five years of prior experience as a Software Developer. My main career interests are: 1) R&D on Deep Learning, Machine Learning, Reinforcement Learning, Game Theory and Combinatorial Optimization; 2) delivering end-to-end AI/ML solutions to production, and effectively evolving and maintaining them using MLOps principles; 3) software engineering.

My human foundation is established in a commitment to ethical living, and it is powered by the desire to listen to the call to know and live by what is right and good.

Experience

Cogniware s.r.o. | *Prague, Czechia*

Artificial Intelligence Researcher and Developer — *Apr 2020 - Present*

- **Lead Artificial Intelligence Researcher and Developer** since October 2021.
- **Responsibilities:** Taking research outputs to production; pursuing an increased maturity of AI/ML projects (training pipelines, adoption of MLOps, serving); AI/ML theory research (documenting, prototyping, data analysis, error analysis); AI/ML technologies research; mentoring.
- **Topics:** Deep Learning (attention-based models, GANs, self-supervised learning...); Machine Learning (Random Forests, NMF, SVD...); Social Networks Analysis (homogeneous/heterogeneous networks, community detection); Computer Vision (object detection and tracking, pedestrian attribute recognition, facial transformations); Fake News Detection (user interactions graph, NLP...); Anomaly Detection in Graphs.
- **Technologies:** PyTorch, TorchServe, Captum, PyTorch Ignite, Ax, Albumentations, Einops, MLflow, Scikit-learn, Hummingbird.

Czech Technical University in Prague (CTU) | *Prague, Czechia*

Artificial Intelligence Researcher and Developer — *Sep 2019 - Apr 2020*

- Algorithmic Game Theory and Machine Learning research; Integrating Deep Learning into Combinatorial Optimization algorithms.

Intellisys D. Corp | *Santiago, Dominican Republic*

Software Developer — *Aug 2014 - Mar 2020*

- **Responsibilities:** Full Stack; Senior level from Aug 2015; Design of training programs; Mentoring; Microservices; AB testing; Data migrations.
- **Technologies:** Webpack; nodejs; php; TypeScript; React; JavaScript ES6; HTML; CSS; Google AMP; Chrome Extensions.

Mother and Teacher Pontifical Catholic University (PUCMM) | *Santiago, Dominican Republic*

Research Assistant — *Aug 2012 - Jun 2013*

Education

Czech Technical University in Prague (CTU) | *Prague, Czechia*

Doctor of Philosophy - PhD: Computer Science, Unfinished — *2019 - 2020*

- **Topics:** Deep Learning; Deep Reinforcement Learning; Algorithmic Game Theory; Multi-agent Systems.

Czech Technical University in Prague (CTU) | *Prague, Czechia*

Master of Engineering - ME: Artificial Intelligence, 1.49 CZ GPA (3.38 US GPA) — *2017 - 2019*

- **Topics:** Statistical Data Analysis; Pattern Recognition and Machine Learning; Statistical Machine Learning; Symbolic Machine Learning; Probabilistic Graphical Models; Theory of Algorithms; Advanced Algorithms; Combinatorial Optimization; Graph Theory; Algorithmic Game Theory; Multi-agent Systems; Planning for Artificial Intelligence; Logical Reasoning and Programming; Artificial Intelligence in Robotics.

Mother and Teacher Pontifical Catholic University (PUCMM) | *Santiago, Dominican Republic*

Bachelor of Engineering - BE: Electronics and Automation, 3.8 US GPA — *2008 - 2013*

- **Topics:** Embedded Systems; Power Electronics; Linear Control Theory; Biomedical Electronics; Linear Systems Analysis; Instrumentation.

Complementary Education

Coursera (DeepLearning.AI) | *Online*

Machine Learning Engineering for Production (MLOps) Specialization — *2021*

- **Topics:** Data/Model/Deployment Pipelines; Managing ML Production Systems; Project Scoping and Design; Concept Drift; ML Metadata; Data Transformations/Validation; Fairness Indicators; Explainable AI; Baselines; Performance Analysis; Monitoring; ML Engineering for Production.

Udacity | *Online*

Computer Vision Nanodegree — *2021*

- **Topics:** Image Recognition and Segmentation; CNNs/RNNs; Object Detection (YOLO, Faster R-CNN); Image Captioning; Object Motion and Tracking (motion models, video analysis); Optical Flow and Feature Matching; Robot Localization (Bayesian statistics); Graph SLAM.