



José Hilario

AI Engineer

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Residence: Prague, Czechia



Summary

Artificial Intelligence Engineer with five years of experience in software development.

Actively building a career in Research and Development of Artificial Intelligence.

Main academic interests:

- Game Theory
- Deep Learning
- Combinatorial Optimization
- Graph Theory
- Reinforcement Learning
- Machine Learning

Main industry interests:

- Deep Learning
- Machine Learning
- Design, analysis and implementation of algorithms
- C++ and Python Development

As a brief introduction to my values: I firmly believe in caring and in taking responsibility in life; everything we do matters. I strive for faith, strength, and perseverance in the good.

« If I am not for myself, who will be for me? But if I am only for myself, who am I? And, if not now, when? »

Hillel, the Elder.

Technical skills and capabilities

Natural Languages:

- (Native) Spanish
- (Bilingual) English
- (Advanced) French
- (Basic) Hebrew

Industry Knowledge:

- Machine Learning
- Game Theory
- Multi-agent Systems
- Automated Planning
- Mathematical Programming
- Scheduling Algorithms
- Statistical Data Analysis
- Graphical Models
- Robust Statistics
- Reinforcement Learning
- Automated Reasoning
- Knowledge-based Systems

Tools and Technologies:

- Python
- PyTorch
- Gurobi
- C++
- Java
- CPLEX
- Matlab
- R
- Prolog
- JavaScript
- React
- HTML/CSS

Academic Formation

2019 - 2020 České vysoké učení technické v Praze (ČVUT), Czech Republic.

(Doctor's degree) Computer Science. Unfinished.

- Deep Learning
- Deep Reinforcement Learning
- Algorithmic Game Theory
- Multi-agent Systems

2017 - 2019 ČVUT, Czech Republic.

(Master's degree) *Open Informatics: Artificial Intelligence. B.*

Thesis: « *Prior Models for Robust Adversarial Deep Learning* ».

- Pattern Recognition
- Statistical Data Analysis
- Statistical Machine Learning
- Symbolic Machine Learning
- Algorithmic Game Theory
- Combinatorial Optimization
- Logical Reasoning and Programming
- Multi-agent Systems and Planning
- Graph Theory
- Theory of Algorithms
- Graphical Markov Models

2008 - 2013 Pontificia Universidad Católica Madre y Maestra (PUCMM), Dominican Republic.

(Bachelor's degree) *Electronic Engineering and Automation. A.*

Thesis: « *Low Cost Triphasic Power Analyzer with Harmonic Analysis* ».

Work Experience

Artificial Intelligence R&D at Cogniware s.r.o.

Apr 2020 - Present

- Social Network Analysis: community detection, role assignment, metrics, incremental algorithms.
- Computer Vision: object detection, object tracking, tracking by detection, pedestrian attribute recognition, stacked frames ensemble model.
- Automated Fake News Detection: based on content and social engagement, based on content, based on image and content correspondence, stacked ensemble model.
- Deep learning.

Researcher PhD Student at ČVUT.

Sep 2019 - Apr 2020

- Algorithmic Game Theory.
- Partially Observable Stochastic Games (POSGs).
- Deep Reinforcement Learning.
- Partially Observable Markov Decision Processes (POMDPs).
- Deep Learning.
- Research and development.
- Python prototyping and C++ development using the PyTorch C++ API.

Senior Software Developer at Intellisys D. Corp.

Aug 2014 - Mar 2020

- Full Stack Developer in an Agile environment.
- Backend, frontend, microservices, AB testing, newsletters, google amp, data migrations.
- Mentoring: evaluating and helping colleagues with their career progress.
- Design of training strategies to be used by coworkers, on the subjects of computer science, software engineering, and the development of character (soft skills).

Research Assistant at PUCMM.

Aug 2012 – Jun 2013

- Power electronics.
- Linear control theory.
- Embedded systems.