



AI ENGINEER

Profile.

Specialist focused on the development of complex algorithms based on artificial intelligence, my main applications rely on perception and control of robots. Due to the exponential growth of the industry, I am an adaptive individual with the ability to solve problems and make new creative products.

Work Experience.

CINVESTAV-IPN / Intel labs 5/2021 - Present
Research Assistant

- Implementation of perception algorithms for obstacle detection using YOLO.v7 architecture and OpenCV.
- Motion planning for a bipedal robot based on deep reinforcement learning using Python, ROS environment and PyTorch, reducing 70% of computing.

Grupo SAC 7/2019 - 3/2021
Technical Support in PEMEX equipment

- Preventive and corrective maintenance of PEMEX stations.
- Monitoring of rectified voltage reading.

Education.

CINVESTAV-IPN Unidad Guadalajara 7/2021 - 7/2023
Master of Science in Electrical Engineering

Thesis: Deep Reinforcement Learning for Bipedal Motion Planning in Autonomous Navigation.

Universidad Politécnica de Altamira 8/2016 - 1/2020
Electronics and Telecommunication Engineering

Thesis: Particle Swarm Optimization for Adaptive Control in Chemical Process

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Soft Skills.

Problem-Solving Analytical

Self-motivated Creative

Languages Skills.

Spanish Native

English B2 CEFR (High Intermediate)

Technical Skills.

Matlab 2022.a 9.7 ● ● ● ● 4 years

C/C++ Dev-C++ 5.0 ● ● ● ● 4 years

Python 2.7, 3 ● ● ● ● 3 years

Bash Shell Script ● ● ● ● 2 years

ROS 18.04, 20.04 ● ● ● ● 1 year

Open CV 4.8 ● ● ● ● 1 year

PyTorch ● ● ● ● 1 year

TensorFlow 2 ● ● ● ● 1 year

Computer Vision ● ● ● ● 1 year

Supervised Learning ● ● ● ● 3 years

Reinforcement Learning ● ● ● ● 2 years

Robotics ● ● ● ● 4 years