



Aarón Juárez

Mechatronic engineer, ROS, computer vision, AI and full stack developer.

Summary

I am a mechatronics engineer graduated from UPIITA in CDMX, I really like development, music and graphic design.

I worked for a year and a half at Intevolution developing virtual assistants and simple interfaces for the front-end with JavaScript and Azure. I did my social service and final engineering project at CINVESTAV Zacatenco developing with some artificial vision nodes and control with ROS.

I worked two years at a Mexican company called The Rocket Code as a full stack developer.

I'm currently working for Tecnológico de Monterrey as a full stack developer.

I prefer to work remotely (open to other proposals), either full-time or part-time.

Please take a look at my portfolio: <https://my-portfolio-rafalama.vercel.app/>

Experience

Tecnológico de Monterrey – Full Stack Developer 2024 – 202X (current job)

The Rocket Code – Full Stack Developer 2022 – 2024 (2 yrs 6 mos)

Intevolution – Software Developer 2020 - 2021 (1 year)

Education

Centro de Investigación y de Estudios Avanzados del IPN

Social Service, ROS, Robotics and Automation Engineering · (February 2020 - May 2022)

Unidad Profesional Interdisciplinaria en Ingeniería y Tecnologías Avanzadas del IPN (UPIITA – IPN)

Bachelor's in engineering, Mechatronics · (2016 - 2022)

Centro de Estudios Científicos y Tecnológicos No. 7 “Cuauhtémoc” del IPN

Technical, Electrical Installations and Maintenance · (2012 - 2015)

Contact();

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Skills();

Front-End: HTML, CSS, JavaScript, Typescript, React, Vue.js, Next.js, Angular

Back-End: JavaScript, Typescript, Python, Node JS, NestJS, FastAPI

DB: MySQL, PostgreSQL, MongoDB, Sequelize, TypeORM

Mechatronic: ROS, MATLAB, SolidWorks, LabView, Python, C++, C

OS: Linux, Windows

Cloud: Azure, AWS, Google Cloud

Data science (Python): AI (TF), OpenCV, Pandas, NumPy, Matplotlib, scikit-learn

IDE: Visual Studio Code, Google Colab, Jupyter notebook

Git-repo: GitHub, Bitbucket

Workflow: Scrum

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Projects

- ❖ **Simultaneous location and mapping in a mobile robot for the exploration of areas affected by disasters:** A website made with React.js that aims to graph a 3D point cloud hosted in a GitHub repository, the point cloud was generated by ORBSLAM2. (UPIITA & CINVESTAV).
- ❖ **Hector Quadrotor Porting:** Because Hector Quadrotor (drone simulator) only works with the ROS Melodic version, I generated a porting for this simulator to work with ROS Noetic. (CINVESTAV).
- ❖ **Virtual Assistant:** A virtual assistant was developed in Intevolution, this assistant helps students and teachers manage various processes, the application was developed with JavaScript and Azure services. (Intevolution).
- ❖ **Machine vision project:** A machine vision project was developed with Python3 and OpenCV on a Raspberry with RTSP cameras for campus access control. (Intevolution).

Published Articles

- Φ **3D reconstruction of objects with a monocular camera mounted on a drone.**
<https://repository.uaeh.edu.mx/revistas/index.php/icbi/article/view/9272>
- Φ **Solving tasks with drones (simulation).**
<https://repository.uaeh.edu.mx/revistas/index.php/icbi/article/view/9273>

Languages	Strengths
<div><div></div><div></div><div></div></div> <ul style="list-style-type: none">English: B1Español: Native	<div><div></div><div></div><div></div><div></div></div> <ul style="list-style-type: none">IngeniousAmbitiousResponsiblePunctual
Interests	Other Skills
<div><div></div><div></div><div></div><div></div><div></div></div> <ul style="list-style-type: none">AIScienceGraphic designTechnologyMusic	<div><div></div><div></div><div></div><div></div></div> <div><div>Word</div><div></div></div> <div><div>Excel</div><div></div></div> <div><div>Power Point</div><div></div></div>