



Aarón Juárez

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

Summary

I'm a Mechatronic Engineer at UPIITA from México, I love development, music, and graphical design.

I worked one year and a half at Intevolution developing intelligent bots with JavaScript, Azure, and programing simple front-end interfaces. I made my social service and engineering final work at CINVESTAV Zacatenco developing with ROS some computer vision and mobile robot control nodes.

I can work stationary, hybrid and remotely (preferably), both full-time and part-time.

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

Experience

The Rocket Code - Full Stack Developer 2022 – 202X (current job)

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 in engineering, Mechatronics · (2016 - 2022)

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

Technician, Electrical installation and maintenance · (2012 - 2015)

Contact

+52 56 2211 2310

Mexico, CDMX

aaronjt@outlook.com

www.linkedin.com/in/aarón-juárez-aa42361ab

Skills

Front-End: HTML, CSS, JavaScript, Typescript, React, Vue.js, Next.js, Framer Motion, Styled Components

Back-End: JavaScript, Typescript, Node JS, Express, NestJS

DB: MySQL, PostgreSQL, MongoDB, Sequelize, TypeORM

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

OS: Linux, Windows

Cloud: Azure, AWS

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 Localization and Mapping Implemented on a mobile robot for exploration disaster affected areas (ORB_SLAM2 3D Map Plotter React Webpage):** Web page made with React.js that has the objective of graphing a 3D point cloud hosted in a GitHub repository, data was generated with ORB_SLAM2.
(UPIITA & CINVESTAV).
- ❖ **Hector Quadrotor Port:** Due hector quadrotor (drone simulator) only works on ROS melodic version; I generated a port to work with ROS Noetic.
(CINVESTAV).
- ❖ **Virtual Assistant:** Develop of a virtual assistant inside of Intevolution, this bot helps manage the students and teachers process, this web app was developed with JavaScript and Azure services.
(Intevolution).
- ❖ **Computer vision project:** Develop of a computer vision project inside of Intevolution with Python and OpenCV on a raspberry with a RTSP camera.
(Intevolution).

Published articles

- Φ **Monocular 3D reconstruction of objects, using a camera on a drone.**
<https://repository.uaeh.edu.mx/revistas/index.php/icbi/article/view/9272>
- Φ **Solving drone tasks in simulators.**
<https://repository.uaeh.edu.mx/revistas/index.php/icbi/article/view/9273>

Languages	Strengths
<div><div></div><div></div></div> <ul style="list-style-type: none">English: B1Spanish: Native	<div><div></div><div></div><div></div><div></div></div> <ul style="list-style-type: none">IngenuityAmbitionResponsibilityPunctuality
Interests	Other Skills
<div><div></div><div></div><div></div><div></div><div></div></div> <ul style="list-style-type: none">AIScienceGraphics designTechnological developmentMusic	<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>