

Carlota “Charlotte” Ramiro de Huelbes

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Systems engineer bridging the gap between hardware, software, and their interfacing systems. Experienced in building automated test frameworks, CI/CD pipelines, and cross-team integration to create robust, efficient solutions.

SKILLS

Hardware & Embedded: C, Arduino, CAN Bus, MATLAB, PCB testing

Software & Tooling: Python, Git, CI/CD (GitLab), Docker, AWS, Kubernetes, TypeScript, Node.js, React, Apollo GraphQL, GoLang

Languages: Fluent in Spanish and English · Conversational American Sign Language

EXPERIENCE

Boeing — EE Cabin Systems Design Engineer

Seattle, WA | Aug 2024 – Present

- Built virtualized lab environments in VMware and configured firewall/VPN networking to enable secure, system-level integration testing with external hardware and software suppliers
- Designed automated regression test frameworks using a simulated TTY and Pytest to validate CLI tool behavior
- Built a GitLab CI/CD pipeline for automatic test evaluation, software best-practices compliance, and large-scale deployment
- Led development of a Python state machine CLI tool for 777-9 critical-path workflow management; demonstrated to Software Engineering and Flight Sciences senior leadership with 30% reduction in cycle time
- Optimized an offline AI transcription model to balance latency, accuracy, testability, and model size with airplane hardware constraints; built a Speech-to-Text cabin accessibility prototype demonstrated at Aircraft Interiors Expo
- Developed test procedures and scripts to automate evaluation of candidate AI models on variable aircraft hardware

Expedia Group — Software Development Engineering Intern

Austin, TX | May – Aug 2023

- Worked on the platform and gateway management team connecting backend and frontend data graphs
- Reduced supergraph composition time by automating Apollo/AWS service lifecycle management, improving developer velocity across the platform team
- Created custom metrics functionality to monitor Node.js project health in DataDog and Splunk

SENER Aerospace — Electrical Engineering Intern

Madrid, Spain | May – Aug 2021

- Designed functional and electrical testing procedures for the SIROM robotic power-transfer mechanism over CAN BUS system
- Programmed a Python GUI for SIROM hardware control and testing
- Selected and validated components for spaceflight projects using electrical schematics and datasheets

Olin Satellite + Spectrum Technology & Policy Group — Student Researcher

Needham, MA | Jun 2021 – Jan 2023

Led project for a low-cost antenna control unit (ACU) that tracks satellites and allows remote control

- Researched and wrote Equivalent Power Flux Density (EPFD) software in MATLAB to quantify interference from NGSO satellite communications systems into GSO satellite networks

Kyaro Assistive Tech — Lead Web Developer and Photographer

May – Aug 2022

Arusha, Tanzania

- Built donation, partnership, and hiring pages and improved SEO for an assistive-tech NGO's website

PROJECTS

Dispraille

Feb 2023

- Mechatronic OCR-to-braille project — won MakeHarvard top prize
- Wrote Arduino (C/C++) and Python software to convert OCR output into braille pin-motor commands
- Designed, built, and integrated the electrical and software systems

EDUCATION

Olin College of Engineering — B.S. Electrical and Computer Engineering

May 2024

Needham, MA

Courses: Software Design, Machine Learning, Data Structures and Algorithms, Large-Scale Software Development, Apollo Graph Developer Certification

AWARDS

- **Massachusetts Space Grant Undergraduate Research Award** — Fall 2021 – Fall 2022
- **Public Interest Technology Summer Fellowship** — Summer 2022