

Carlota “Charlotte” Ramiro de Huelbes

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Education

Olin College of Engineering, Needham, MA

B.S. in Electrical and Computer Engineering

MAY

2024

GPA: 3.7 | Recipient of \$128,000 merit scholarship

Courses: Software Design, Computer Architecture, Discrete Mathematics, Modeling and Simulation

Skills

Software: Python, MATLAB, C++, Arduino, HTML, Javascript, CSS, Gatsby, Excel, SolidWorks (CAD), Adobe Suite, System Verilog

Languages: Spanish, English

Experience

Olin Satellite + Spectrum Technology & Policy (OSSTP) Group

JUNE 2021 - PRESENT

Student Researcher

- Co-lead project for antenna control unit (ACU) that tracks satellites and allows remote control via a user interface
- Researched and developed Equivalent Power Flux Density (EPFD) software in MATLAB to quantify interference from NGSO satellite communications systems into GSO satellite networks
- Reviewed and edited textbooks for Analog and Digital Communications and Satellite Systems classes

Sener Aerospace

JUNE - JULY 2021

Electrical Engineering Intern

- Company supplies systems integration and engineering services to international Space, Aeronautics, Defense markets
- Developed and performed functional and electrical testing procedures for SIROM robotic mating and power transfer mechanism with CAN Bus communication system
- Programmed graphical user interface using Python for clients to interact with SIROM
- Researched and selected components to recommend for several spaceflight projects
- Learned how to use Altium printed circuit board designing software

Platfrogs

MAY 2021

- Designed and programmed frog-themed platformer game in Python with PyGame library
- Practiced object-oriented programming and model-view-controller game development
- Wrote unit tests to check for bugs and ensure that program was running as intended
- Created GitHub website to explain project features and installation
- [Additional information](#)

Finding the Superior Streaming Service

APRIL 2021

- Analyzed data from Watchmode API using Python to find best streaming service
- Compared services through number of movies and average user rating for specific genres
- [Additional information](#)

Creating Optical Character Recognition (OCR) Software

NOVEMBER 2020

- Used principal component analysis in MATLAB to create software to recognize text from photos
- Trained algorithm on EMNIST dataset & used nearest-neighbour recognition
- Tested code with different training set and principal component sizes to optimize performance

Awards

Massachusetts Space Grant Undergraduate Research Award

FALL 2021