

Rosario Campos Campos

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EDUCATION

New York University, Tandon School of Engineering

Brooklyn, NY

Bachelor of Science, Computer Engineering

Expected May 2027

- **Relevant Coursework:** PCB Design, Embedded System, Digital Logic and State Machine Design, Fundamentals of Electric Circuits, Fundamentals of Electronics, Data Structure and Algorithms, Object-oriented Programming, Linear Algebra and Differential Equations, Probability and Statistics for Engineers, Multidimensional Calculus

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, C, Verilog

Tools and Platforms: Altium, Arduino, xBee, PlatformIO, CAD, Git, Google Cloud, MS Office, VS Code, PyCharm, DaVinci

Languages: Fluent in English and Spanish, beginner in French, and knowledge of Latin.

EXPERIENCE

NYU Rogue Aerospace

New York, NY

Electrical Team Member

2026 – Present

- Design transistor and receiver circuit powered by Arduinos and Xbees to sense and control pressure valves.
- Programmed Xbees to transmit pressure sensor data wirelessly to ground support equipment in real time.
- Build, wire, and bench-test ground support equipment and ground control hardware, validating sensor accuracy, wireless link stability, and end-to-end valve response.

Idealist

New York, NY

Internship

April – August 2024, Summer 2025

- Assisted with social media content production, including filming and editing interviews and promotional videos.
- Supported planning and coordination of community events organized by the office.
- Collaborated with the communications team to develop engaging online content aligned with Idealist's mission.

Holy Trinity Church

New York, NY

Rectory Receptionist

2021 – August 2025

- Managed phone calls from parishioners and provided information and directed inquiries as needed.
- Supported the planning, scheduling, and coordination of church events and activities.

PROJECTS

Drone Flight Controller PCB | New York University, PCB Design

2021

- Designed full schematics in Altium for a 4-layer STM32F405-based flight controller, organized across multiple pages with global net labels for parallel team collaboration.
- Built the power tree stepping 24V LiPo down to 5V (LMR51450 buck) and 3.3V (LDO), with reverse polarity protection, TVS ESD protection, and TPS2113 USB/battery muxing.
- Integrated an LSM6DSVETR IMU, M24C64 EEPROM, and INA226 power monitor (Kelvin-connected to a 2m shunt) across three independent I2C buses.
- Executed PCB layout, routing, polygon pours, and silkscreen labeling on a JLCPCB 4-layer stackup with 90 differential-pair USB routing.

STM32 Microcontroller PCB | New York University, PCB Design

2026 – Present

- Designed schematics in Altium for a custom STM32-based development board with USB-C interface, SWD debug header, external crystal oscillator, reset/boot button circuitry, and power decoupling.
- Created PCB layout, component placement, and trace routing with attention to signal integrity and power distribution.
- Generated Gerber files for fabrication and used the completed board as the platform for subsequent course projects, including the NYUDroneFC.

RAZI – Smart Emergency Response Vest | New York University, Engineering and Design Course

2022

- Designed and built a wearable vest with a heart-rate sensor that triggers automatic inflation and on-screen alerts at elevated thresholds, using Arduino and C++.
- Developed a circuit integrating a motor, heart rate sensor, and display screen using Arduino components and C++ programming.