Caroline D. Eco

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SUMMARY

Electrical engineer and a robotics researcher. Strong problem solving, leadership, communication and documentation skills. Dynamic, creative and empirical. Values integrity, teamwork and interpersonal relationships.

PROFESSIONAL EXPERIENCE

PepsiCo Contractor with Insight Global - Valhalla, NY

R&D Electrical Engineer   Aug 23-Present
- Maintains QP vending, connectivity and onboarding data; develops reports & dashboards for R&D/ITM
- Conducts site surveys and cellular signal analysis to characterize placement connectivity for units
- Performs troubleshooting on, setting up, installation and validation of units
- Currently developing a signal loss testing device to be used for QP development
- Created validation checklists for on-site unit installation and units under re-deployment

Nanotronics Imaging - Brooklyn, NY

Electrical Engineering Associate   Apr 21-Jul 23
- Used Altium Designer to design and develop microcontroller-based circuit boards using SMT components
- Designed a 0-25 mA current source with a 16-bit receiver-transmitter for manufacturing applications
- Performed noise characterization, quality and failure analysis of circuit boards
- Authored testing and training procedures, line drawings and instructions for products and assemblies
- Developed C++ firmware for boards and python user-interface for circuit board testing
- Delivered a fully functional two-axis motor controller for nSpec's Transmitted Motorized Polarizer

Electrical Engineering Intern   Feb 21-Apr 21
- Designed schematics/PCB and programmed three circuit boards using AVR microcontrollers and IMU sensor

National Oceanic and Atmospheric Administration - Brooklyn, NY

Researcher, Center for Earth System Sciences and Remote Sensing Technologies   Jun 20-Dec 20
- Analyzed remote sensing data obtained by the ECOSTRESS sensor and Landsat-8 satellite
- Filtered images using data frames through Python programming & Anaconda Suite
- Created maps using QGIS; create StoryMaps using ArcGIS; program in Octave

Research Foundation of CUNY - New York, NY

Robotics Instructor and Robotics Competition Coach, BMCC   Sep 16-Jun 20
- Worked with students in designing an autonomous robot for their robotics competition
- Introduced mechanical design, hardware and programming using LEGO and VEX robotics equipments
- **Awards:** 1st and 2nd Place during the 2018 Annual STEP Robotics Competition, Adelphi University

EDUCATION

New York City College of Technology - Brooklyn, NY   Magna Cum Laude

Bachelor of Technology in Electrical Engineering Technology   Jan 21-Dec 22
- Satellite Transmissions; Power Electronics; Electric Machines Theory; Signal and Systems
- E/curricular: President, Electronics Technicians Association; Participant, NSF-Research Experience

Borough of Manhattan Community College (BMCC) - New York, NY   Aug 15-Aug 17

Associate in Science in Engineering Science
- E/curricular: President, Robotics Club; Captain and Lead Programmer, Robotics Team; Researcher, CSTEP
- **Awards:** Honorable Mention in Engineering Research, CSTEP; Excellence in Research, BMCC

SKILLS

Altium Designer; KiCAD, C/C++/C#/Python/Git; Visual Studio; Arduino; RPi; MATLAB; LabVIEW; Multisim