

# Prangon Ghose

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## Education

### Stony Brook University

BACHELOR OF ENGINEERING (B.E.), COMPUTER ENGINEERING

Stony Brook, NY

August, 2017 - PRESENT

- **Anticipated Graduation:** May, 2021
- **GPA:** 3.7/4.0
- **Organization(s):** Stony Brook Robotics Team, IEEE-Eta Kappa Nu Honors Society - Theta Mu Chapter, Institute of Electrical and Electronics Engineers (IEEE)
- **Honors/Awards:** Dean's List (All Semesters), Presidential Scholarship, CEAS Dean's Scholarship
- **Relevant Coursework:** Data Structures, Embedded Systems Design with ARM and AVR Microcontrollers, C/C++ Programming, Java and Object-oriented Programming, Digital Design using VHDL and PLDs, Computer Architecture, Modern PCB Design

### Stuyvesant High School

ADVANCED REGENTS DIPLOMA WITH HONORS

New York, NY

September, 2013 - June, 2017

## Skills

**Programming Languages** Python, C++, C, Java, Assembly (MIPS and AVR), HTML, CSS, JavaScript

**Software** Git, SQL, UNIX/Linux

**Hardware** Embedded Systems (ARM and AVR), VHDL, Autodesk EAGLE

## Professional Experience

### Enertiv

IoT DATA ANALYST

New York, NY

January, 2020 - PRESENT

- **Analyzed** the viability of Long Range (LoRa) Internet-of-Things (IoT) sensors to expand Enertiv's sensor portfolio, resulting in nine new sensor integrations
- **Revamped** the sensor installation process by developing an Angular Web App with a Django backend to collect sensor configuration data, reducing costs by 10%
- **Established** a framework for integrating Modbus sensors into the Enertiv sensor network using LoRa, reducing sensor installation time by 20% and expanding application opportunities for Modbus sensors

### Stony Brook University Science and Technology Entry Program (STEP)

INSTRUCTOR

Stony Brook, NY

January, 2019 - PRESENT

- **Launched** the Program's first-ever coding course using Python, teaching 15-20 high school students every semester
- **Advanced** the coding course by creating and teaching a 7-week course on introductory object-oriented programming in Python, resulting in an 80% retention rate

## Leadership Experience

### Stony Brook Robotics Team

PRESIDENT, PROJECT MANAGER, SOFTWARE TEAM LEAD

Stony Brook, NY

May, 2018 - May, 2020

- **Expanded** active member participation by 150% and recruited over 45 students across three engineering teams to revitalize competition-based project development
- **Streamlined** the team structure and communication system, accelerating each project's road-map by 20% and increasing member productivity by 10%

## Projects

### AutoCar

A 10:1 RATIO AUTONOMOUS GROUND VEHICLE, BUILT WITH **PYTHON** AND **C**

- **Developed** a message-passing API in Python to transmit and receive NumPy arrays, JSON objects, and other fundamental data types using the ZeroMQ framework and the publisher-subscriber pattern to communicate in between various subsystems

### Motion-detecting Sign

A CUSTOMIZABLE LED SIGN WITH MOTION DETECTION, DESIGNED IN **EAGLE**

- **Designed** a two-layer printed-circuit board in Autodesk EAGLE with an on-board, re-programmable STM32L0 low-power micro-controller and a USB-based power system, streamlining the circuit and reducing hardware costs