Education:

**Massachusetts Institute of Technology – Cambridge, MA** 2016

Candidate for B.S. in Aerospace Engineering

Relevant Coursework: Calculus, Physics-Mechanics, Seminar on Systems Thinking

**Egg Harbor Township High School – Egg Harbor Township, NJ** 2012

Valedictorian in class of 632 Students

GPA: 108.9 (weighted, out of 100), SAT: 2290

Experience:

**Internships at NASA Goddard Space Flight Center – Greenbelt, MD**

***Engineering Testing Unit Development*** June-August 2012

* Paid internship under Dr. Keith Gendreau, the PI for the Neutron star Interior Composition ExploreR (NICER)
  + Phase A ISS mission which will study neutron stars with 56 co-aligned X-ray concentrators and matching detectors with a 2000 cm2 effective area.
* Developed a mock-up attitude control system (ACS) and tracking program
  + Modeled the mission’s ACS, ISS vibration, and demonstrated tracking abilities within mission requirements
* Assembled and tested x-ray concentrators, created an optic holder, and designed an optic alignment mechanism
  + Characterized the effectiveness of the first assembled optics by determining the point-spread function of the optic engineering testing units
* Created and programmed a device to make precise measurements for optic creation
* Gained experience with Python coding, machining and manufacturing, hands-on lab work, engineering design
* Led a small group of HS interns on their own project involving NICER

***Proposal* *Team* *Assistant*** June-August 2011

* Paid internship sponsored by the NASA INSPIRE program under Ezinne Uzo-Okoro for the Cloud Aerosol Interaction Mission in 3D (CLAIM-3D)
* Compiled flight history data for an instrument to be flown on the proposed Earth observing satellite, interfaced with engineers and scientists, created tables and wrote descriptions of information to be used in the proposal, designed graphical Fold Outs and a Mission Fact Sheet

Leadership and Activities:

**High School:**

**Interact Club** – Historian, Lead Chairperson

* Created, managed, and ran a photo booth for the 21 Down Christmas Party, completed 60+ hours in service projects

**National Honor** **Society** - Vice President

* Coordinated the tutoring program and tutored peers in mathematics

**NASA INSPIRE Program**

* National program centered around an online learning community and Summer STEM Experiences; participated in several engaging activities, live chats, and group projects, selected to attend 3 Summer STEM Experiences

**NASA JSC Women in STEM HS Aerospace Scholar**

* Completed 5 units about space exploration which entailed writing 5 extensive reports, doing related math, designing missions to the Moon and Mars, and participating in discussions

**NJ Science League** (Biology, Chemistry, and Physics)

**Atlantic Youth Orchestra, HS String/Pit Orchestra** - Violin Section leader

**Academic Challenge Club** - Team Captain

**Varsity Soccer and Club Soccer** –Team Captain

**MIT:**

Club Soccer Team, MIT Society of Women Engineers, Ballroom Club

Skills and Awards:

**Computer:** Python, JAVA, Microsoft Office,

**Languages:** English, Spanish – Conversational

**Certificate of Merit from the Society of Women Engineers** 2011

**Varsity Scholar Award & Varsity Soccer Award** 2008-2012

## **AP Scholar Award, AP Scholar with Honor, AP Scholar with Distinction** 2012

**EHTHS Principal’s Award - Mathematics** 2012