

ANWESHA GHOSH

Apply biology or biophysics through
computer science

EDUCATION

August 2020 - Present

Dublin High School, CA

*Engineering Academy
Varsity Student-Athlete*

Weighted GPA: 4.83

*AP Phys 1, AP Bio, AP Calc AB, AP
Comp Sci Principles, AP Enviro Sci,
AP Seminar, AP Eng Lang & Comp
H. Digital Elec, H. Principles of Engin*

RELEVANT SKILLS

Arduino / C++

CompTIA Security+ Certified

Digital Steganography

HTML & CSS certified

Linux / Bash

NMAP Network Scanning Software

Python Certified

RSA Cryptography

VSC Software

VMware Software

Wireshark Network Analyzer Software

RESEARCH

September 2020–February 2021

Arduino System for monitoring voltage and water quality of a Dual-Chambered Microbial Fuel Cell - *Project Planet Special Award, 1st Place Alameda County Science Fair, Honorary Mention California Science Fair, International Science Fair Semifinalist*

- Learning: Arduino system measured 0.2 to 0.4 mA of voltage generated by the microbial fuel cell, verified by a multimeter; The arduino system also monitored the status of the septic bacteria growth through pH and turbidity; the two-chamber model connected by a PVC agar bridge successfully created a polarity and current generated by the respiration from septic bacteria

PROFESSIONAL EXPERIENCE

Amplo Global Inc., New Jersey - Management Analyst Summer Intern

June 2020–August 2020

- Provided relief in Sunderban after Cyclone Amphan by building a model community in the Hingalgarj block with first-aid training, school wide meal systems, gardening/farming in the hypersaline environments (rice grains that can be grown the saltwater flooded rice paddies), digging wells to access freshwater and temporary tents for students and their families

Eta Carinae Nonprofit, Dublin - Founder

June 2020–Present

- Bringing creativity through STEM to Title 1 schools with workshops teaching skills such as how to use power tools, hydraulics and woodwork
- Partnered with Antioch schools to donate books and clothes as well as helped teach basic online cybersecurity to Dublin Senior Center

Trivalley CoderDojo, Livermore - Leadership Council & Python Mentor

August 2016–Present

- Maintained club from leadership position of 150 people learning different aspects of online skills on a weekly basis across different Bay Area venues
- Created curriculum to teach a group of 30 students Python over a school year

AWARDS and EXTRACURRICULARS

- 8 years of Destination Imagination (global STEM competition) where I used Arduino to build a drone, human sized bird wings, automated blooming flowers and motion censored curtains -- 4th/70 Place Globals, 4x Global Finalist, 3x Da Vinci Award for creatively bringing awareness to gun violence in story-telling format
- 3 years of Science Olympiad -- Dublin High Secretary and placed at States with three events: Codebusters 5th/40, Water Quality 6th/40, Green Generation 12th/40
- 3 Years of Varsity Track and 1 Year of Jumps Captain -- 400M, Triple Jump, Long Jump
- 4 years of Capture the Flag CyberSec Comps -- Nationally Top 10% PicoCTF and CyberPatriot Platinum Tier SemiFinalist x3 and Top 10% National Cyber League
- 4 years of CalPoly Cybersecurity Innovation Challenge, 12th and 6th & Bay Area Regionals Cyber Competitions Gold Winner under Professor Irvin Lemus