Anika Nath

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Education

Stoneham High School, Stoneham, MA **(**2017 – June 2021)

CS50 - Introduction to Computer Science, Harvard College, online via EdX (2016)

School Class rank: 3 (Grade 11 second semester not included)

GPA: *Weighted*: 4.94, *Unweighted*: 3.98 (Grade 11 second semester not included)

ACT: 34 (English: 33, Reading: 33, Science: 34, Math: 35)

AP: AP Computer Science Principles (5/5), AP Computer Science A (4/5), AP Psychology (5/5), AP US History(5/5), AP Chemistry (5/5), AP Calculus AB (5/5), AP English Language and Composition (3/5)

Work Experience

- **Website Intern, Empowerment Through Integration** (May 2018 - Present)
  - Re-design the website to make it more visually appealing.
  - Enhance, Administer and Maintain the ETI Website and keep it up-to-date.
  - Establish and maintain website accessibility.
  - Attending weekly team meetings with key ETI team members to share the progress of website updates.
- **Melanoma Education Foundation** (June 2018 - August 2018)
  - Confirmed whether teachers in the organization's database are still at the schools and updated the spreadsheets with the information.
- **Automation Testing at WeCanTest** (June 2017 - August 2017)
  - Created various programs for automation testing and wrote Java tests for the Everbridge mobile app.

Research Experience

- **Research Project, Photobleaching effect of CDOM in diverse water bodies** (June 2020 - Present)
  - Undergoing a research project with a research team at Boston University, led by Dr. Cedric Fichot and Xiaohui Zhu.
  - Research goal is to find how organic matter found in water bodies (called CDOM - Chromophoric dissolved organic matter) gets affected by exposure to sunlight via the process of photobleaching.
  - Understanding data from prior experiments as well as earlier research papers on this topic.
  - Using Python to various Machine Learning techniques to find patterns in the Photobleaching Efficiency Matrix (C-PEM) of CDOM in diverse water bodies.
  - Analyzing the results with the Boston University team and formulating the next steps.

Community Service

- **Covid-19 Community Outreach** (April 2020 - Present)
  - Created the Covid-19 Stoneham Mutual Aid Hub chapter with 2 major goals:
    - Providing valuable information to people during Covid-19 times, with regular updates for the community.
    - Providing help to people in need by matching them with volunteers that are ready to help via Request\Offer Help form.
      - Help includes delivering groceries, prescriptions and preparing meals.
  - Ongoing fundraiser in which I have raised more than $800 dollars. I passed the donations to Stoneham Senior Center so the money can be used to pay for items such as prescriptions as well as to the Stoneham Food Bank.
  - Created multiple best wishes cards for senior citizens at life care centers in order to lift their spirits and provide them encouragement in these times and mailed them to 48 life care centers across 28 states in the USA.
- **Girl Scout Troop Member** (September 2015 - Present)
  Volunteering as a Girl Scout in several community events including Memorial Day parades, Veteran Day Parades, Halloween Stroll, Christmas Tree Lighting, Bingo games, Me and My Gal Square Dance, and Character Breakfast.

School Activities

- **Video for Seniors** (May 2020 - June 2020)
  - Conceived, led, and created the "Drive down the memory lane" video with 3 more students since the seniors could not have a formal prom and graduation due to Covid-19.
  - The video is a high school remembrance for seniors and has pictures shared from all high school students. It is shared on the school website.
- **Founder of Board Game Club** (October 2018 - Mar 2020)
  - Conceived and started a board game club that focuses on the elements of games and designing new variations of the games to spread my interest in board games and foster a "think outside the box" approach.
- **Vice President of Sophomore Class** (October 2018 - June 2019)
  - Led the class at various times by creating a presentation for the class act in the annual carnival ball show, deciding on the class Halloween theme, organizing semi-formal dance, and selling popcorn at a school sport event.
- **Speech on Disability** (April 2019)
  - Gave speech to the entire school on the challenges with disabilities, and at the same time, helped them recognize and appreciate the capabilities that people have even with their disabilities. It also encouraged them to be more welcoming to people with disabilities and include them in their conversations.
- **School Clubs** (September 2017 - Mar 2020)
  - Involved in many clubs including Chess Club (Grade 9-11), Math Team (Grade 10-11), MathWorks Math Modeling Challenge (Grade 10-11), Science Bowl (Grade 10), and Drama Club (Grade 10), IMLEM Math competitions (Grade 6-8).

Honors

- **First Prize at Massachusetts Science and Engineering Fair (MSEF), Foundation Medicine Award, Naval Science Academy Award, U.S. Air Force Award** (May 2020)
  - Project title - ML-based Speech Recognition App for individuals with speech disorders.
  - Created an Android app that would recognize ten basic words spoken by individuals with speech disorders. Used the Tensorflow library for training the model and then predicting the accuracy of the trained model.
  - Currently working on this app with the goal of recognizing the complete speech of a person with speech disorders.
- **Girl Scout Gold Award** (February 2020 - June 2020)
  - Project title - Inspiring Young Minds by their Hobbies, Encouraging Young Hearts by Engineering Opportunities.
  - Dedicated to inspiring elementary school girls and boys to understand the "what", "why", and "how" for their hobbies in order to immerse them into the STEM part of their hobby.
  - Targeted Girl Scout troops with the goal of decreasing the gender gap in STEM fields.
- **Harvard Book Award** (June 2020)
- **AP Scholar with Distinction** (August 2020)
- **Voice of Democracy Essay district winner**, **Top 10 in MA** (January 2020) for prompt: "What Makes America Great"
- **Voice of Democracy Essay district winner**, **Top 10 in MA** (January 2019) for prompt: "Why My Vote Matters"
- **Student of the Month Award for Spanish in Grade 11** (December 2019)
- **Student of the Month Award for Technology in Grade 9** (February 2018)
- **Russian School of Mathematics Principal's Award** (June 2018)

Special Skills

- JavaScript, Java, C, Python, Tensorflow
- Squarespace - Website design tool
- Blender - Open source 3D animation creation suite
- WordPress, Google Sites

Hobbies

- **My Blog https://anikanath.com/blog/ -** Created my blog to highlight my passions, achievements, adventures, and experiences.
- **Brilliant App -** Brilliant is an App that teaches a variety of STEM subjects and how to derive and apply formulas, think of unique ways of solving challenging problems, and keep learning on how STEM is used in everyday life.
- **Board Games -** Enjoy playing strategic and fun board games with my family and friends because it teaches me critical thinking. Also, it is fun to use different strategies each time to figure out which one works the best.
- **Blender -** Blender is a 3D animation suite. I enjoy creating animated videos in it.