**Serena Shih**

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**Academic Information**

High School Attending – Diamond Bar High School

G.P.A.: 4.0 (9,10)

Class Rank: 1/631

SAT with Essay: 1530(E:730 M:800), Essay 18 (10) (Dec. 2019)

SAT II Biology: 800 (9)

SAT II Chinese: 800(10)

ACT with Essay: Composite 33 Essay 10 (8)

PSAT 8/9: 1440 (8)

AP Biology: 5 (May 2020)

AP European History: 5 (May 2020)

AP Calculus AB: 5 (May 2020)

**Honors and Advanced Placement Courses**

Honors Algebra 2/Trigonometry (9)

Honors Biology (9)

Honors Math Analysis/Calculus (10)

Honors Chemistry (10)

Honors Spanish 2 (10)

AP European History (10)

AP Physics C (11)

AP US History (11)

AP Computer Science A (11)

AP Language and Composition (11)

AP Calculus BC (11)

Self-Studied:

AP Biology (online credit course)(10)

AP Chemistry(online credit course) (11)

AP Physics 1 (11)

AP Physics 2 (11)

AP Music Theory (11)

**Extracurricular Activities**

*Clubs/Organizations*

* FBLA (9,10,11)
  + Club in which members prepare for leadership in business and future careers through competitive testing, various workshops, and personal and community projects
  + Projects Committee Officer (10)
    - In charge of managing project completion and member engagement; reviews members’ project submissions; secures professional division members; complete Gold Seal reports each month (Gold Seal Award of Merit recognizes chapters that participate in activities that characterize FBLA goals; only 15% of chapters in each state receive award)
  + Secretary (11)
    - In charge of creating meeting agendas and taking meeting minutes; organizing chapter drive; help ensure calendar events are executed; help create newsletter and other outreach
* Girl’s League (9)
  + Club whose members give back to the community in the form of fundraisers, sales, volunteer events, and donations (58 community service hours)
* Math Team (10,11)
  + Club whose members improve their math skills in workshops and compete individually and/or as a school in various regional and national tests (AMC, Math Madness, Log1, Rocket City Math League)
    - Math Madness inter-school competition: DBHS placed 27th nationwide in 2020
* Brahma Tech Student Council (10,11)
  + School STEM organization
  + Activities Committee (10,11)
    - In charge of planning and organizing workshops, meetings, and more
* Kode 4 Kids (11)
  + Volunteer organization dedicated to bringing programming knowledge to elementary and middle-schoolers
  + Java Instructor (11)
  + Social Chairperson (11)
* USABO (11)
  + National biology exam series
* California Scholarship Federation (10,11)
  + Volunteer club with various opportunities to give back to the school and community
  + Peer Tutor (10,11)
    - 18 community service hours

*Figure Skating (1-11)*

* Competitive sport requiring athletic prowess, musical interpretation, and performance ability

*Piano (K-11)*

*Johns Hopkins University CTY Summer Camp (9)*

* Course in Biomedical Sciences
  + Project Team Leader
    - In charge of a team of 3 in a dissection project; presented our findings and data to the class

**Awards**

*Essay Contest Winner (8)*

* First place in 8th grade category; topic was based on an interview with a Vietnam War veteran; contest organized by Chino Hills Kiwanis

*FBLA*

* 2019
  + Introduction to Business Procedures (4th place at State, qualified for National)
  + Introduction to Business Communication (5th place at State)
* 2020
  + Computer Applications (4th place at Sections, qualified for canceled State conference)

*Student of the year*

* Introduction to Engineering and Design (10th grade)

*Figure Skating (1-11)*

* Placed 1st in Open Juvenile level at 2019 Skate Southwest Pacific Non-Qualifying Regionals (9)
* Placed 3rd in Intermediate Level at 2020 Southwest Pacific Qualifying Regionals (10)
* Ranked 22nd in Pacific Coast Section and 77th nationally 2019-2020 at Intermediate Level (10)

*Piano (K-11)*

* Passed with honors 10 consecutive years in National Piano Guild (10)
* Passed with distinction up to CM Level 9 (10)
* Passed with distinction highest level, Level 8, in ABRSM (8)
* Satori Competition (11)
  + 2nd place in 3 categories in Prodigy category: American Composer, Baroque, and Open

**Additional Leadership Experience**

*Computer Systems Final Project Leader (9)*

* In charge of a team of 3; delegated responsibilities and positions; ensured project was completed well and on time; presented final PowerPoint, SonicPi and Python creation

**Aspirations**

As a high school student, I have come to realize that my calling lies in the STEM fields, particularly artificial intelligence where my primary interests, computer science and engineering, meet. The study of AI incorporates many fields of study in which my skills are well suited for. As an avid biology student, I dreamed of becoming a nutritional research scientist or sports medicine doctor, as a way of giving back to the sports community I have been so fond of. Now, with a slightly different direction, I can still use that knowledge to enhance medical AI devices and robotic movement. My position as both an athlete in an artistic sport and musician allows me to understand how the human body moves and how sound affects emotion in a deeper sense than the average person. Sound is a valuable and prevalent form of input for robots, and movement is crucial in ensuring tasks get completed efficiently and interactions with humans are seamless. Additional physics, math, and computer science education in school made me feel as if I had uncovered so many previously hidden mechanisms by which we live our lives and experience amazing feats, such as how algorithms allow computers to process information and why gyroscopes behave the way they do.   
 With the knowledge of how current technology works, we can advance the human race to great lengths, and so much of that will have to do with artificial intelligence. AI holds the key to our collective future, whether for good or for bad will be determined by those who work with this technology. I hope to contribute a curious and logical mind to the enhancement of AI in an ethical way that improves the quality of life and education for everyone.