

# JIA-SHU (JOSEPH) CHEN

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## EDUCATION

### Santa Teresa High School Class of 2016

GPA: 4.0 (Unweighted), 4.53 (Weighted)

#### Standardized Testing Scores:

34 (ACT Composite Score)

34 English; 36 Math; 33 Reading; 34 Science; 10 Essay

800/800 (SAT Subject Test: Chemistry)

790/800 (SAT Subject Test: Biology)

780/800 (SAT Subject Test: Math II)

5 – AP Chemistry, AP Calculus AB, AP Calculus BC, AP Statistics, AP US History

4 – AP Biology

3 – AP World History, AP English Literature & Composition

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## ACADEMIC HISTORY

### Math Courses

- Multivariable Calculus at De Anza Community College, AP Calculus BC, AP Statistics, AP Calculus AB, Pre-Calculus, Algebra 2, Geometry, Algebra 1

### Science Courses

- AP Chemistry, AP Biology, AP Environmental Science, AP Psychology, College Level Calculus Based Physics (At DeAnza Community College), Programming Methods in C++ (At DeAnza Community College), Chemistry, Physics, Biology

### Computer Languages

- C++ (Advanced – Learned College Level C++ Programming Skills at De Anza Community College), HTML, CSS, JavaScript

### Foreign Languages

- English (Fluent), Chinese (Fluent), Arabic (Proficient), Spanish (Proficient)

### Humanities

- AP United States History, AP World History, AP Art History, AP English Literature and Composition, AP English Language and Composition, English 2A, English 1A
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## RESEARCH EXPERIENCE

### Abraham Cardiovascular Research Lab at Johns Hopkins Medical Institute

Summer of 2013

#### Research Assistant

- Worked under Primary Investigator Dr. Maria Roselle Abraham
  - Collaborated with Mr. Justin Morrisette, Ph.D candidate and Mrs. Sophia Brown
  - I decellularized rat hearts and seeded them with neonatal rat ventricular myocytes to test our novel sugar analogs after stimulating the necrosis that occurs post-myocardial infarction. Ultimately, we wanted to determine whether successful heart regeneration and angiogenesis was feasible by utilizing neonatal macrophages.
  - The main issue being addressed was to find an alternate procedure to repair injured cardiac tissue that would lead to successful scar formation by using anti-inflammatory macrophages after sugar analogs altered the typical pro-inflammatory response into an anti-inflammatory response. Typically in a human adult heart, the immune system is able to facilitate scar formation in the damaged cardiac tissue following the myocardial infarction and an inflammatory response. However, repairing the damaged myocardium through a fibrotic scar inhibits cardiac function and results in further heart failure and decline of cardiac output and stroke volume, thus serving as the purpose for conducting the experiment and finding an alternate procedure.
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## WORK EXPERIENCE

### Seldn Inc. (Stealth Start Up Company)

Summer of 2015-Present

#### Research and Code Writer Intern

- Seldn is a stealth start-up company that specializes in predicting global macro risks using artificial intelligence. The algorithms used and Big Data are able to provide a platform geared towards predicting political, financial, and social macro risks such as well as economic crashes, labor strikes, and riots.
- At Seldn Inc., I write research papers involving utilizing artificial intelligence and international events regarding our generated predictions and edit investor briefings for potential investors and corporate council members. I am involved in transcribing hours of recordings and finding data sets for machine learning algorithms and predictions. Additionally, I have assisted in the planning of two corporate councils that have hosted Supply Chain VP's and Supply Chain Managers from Levi Strauss, Apple, Tesla, SanDisk, and others.

### Kumon Math & Reading Center of Santa Teresa

Summer of 2015-Present

#### Teacher

- At Kumon, I grade the class work and homework of students ranging from K-12. I also tutor and help the kids with their current subjects that they are struggling with. These subjects range from basic arithmetic to Algebra to Pre-Calculus and Calculus.
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## VOLUNTEERING

### Kaiser Permanente San Jose Hospital Volunteer

2012-Present

#### *Shift Trainer*

- Total Years: 3 Years/ Accumulated Hours: 370 Hours
  - At the Kaiser Permanente Volunteer Program, we assist the faculty of Kaiser Permanente by discharging patients, delivering patient paperwork, manning the surgery desk as well as the information desk, being service ambassadors, and executing other errands.
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## EXTRACURRICULAR ACTIVITIES

### Santa Teresa International Relations Club (Model United Nations)

2013-Present

#### *Secretary General/President and Past Vice President*

- Represent countries in United Nations Committees/Competitions and debate about global issues and events. The ultimate goal is to pass hypothetical resolutions in the simulation of an actual UN committee that appeases all the nations' perspectives and benefits the topic being discussed.
- Plan and host an annual high school Model United Nations conference for schools all over the Bay Area and farther. Our conference is called SCVMUN (Santa Clara Valley Model United Nations Conference) and hosts approximately 800 delegates.
- Santa Clara Valley Model United Nations Conference 2015: 1<sup>st</sup> Place (World Bank)
- Regional High School Model United Nations Conference 2014: 1<sup>st</sup> Place (Security Council)
- Stanford Model United Nations Conference 2014: 3<sup>rd</sup> Place (Historical Crisis Committee)
- Santa Clara Valley Model United Nations Conference 2014: 3<sup>rd</sup> Place (UNHCR)
- Berkeley Model United Nations Conference 2015: 3<sup>rd</sup> Place and Research Award (Security Council)
- Stanford Model United Nations Conference 2015: Research Award (Security Council)
- Stanford Model United Nations Conference 2013: Research Award (DISEC)

### National Honor Society

2014-Present

#### *President, and Past Vice President*

- A service club for academically qualified students that assist in community events through volunteering.
- Being the president, I work to organize as many volunteer events as possible for the club members so that they can have opportunities to develop service and leadership skills.

### Year Round Swim Team Member

2007-Present

- Swam on a year round swim team since the 4<sup>th</sup> grade and have qualified for statewide meets such as Junior Olympics and Far Western Championships. Placed top 9 at Junior Olympics.

### Santa Teresa High School Varsity Swim Team

2013-Present

- Making the varsity team in all my years at Santa Teresa, I have been able to represent my team at California's State Competition and fight for a league championship with my fellow Varsity Teammates. I was also part of the 200 Freestyle Relay team that broke our school's 20-year-old record in that event.
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## AWARDS

### Junior Mathematics Department Achievement Award

### Junior Science Department Achievement Award

### Junior Social Science Department Achievement Award

#### **1<sup>st</sup> Place – Regional High School Model United Nations Conference 2014**

- Represented Nigeria in Security Council and debated with nations about the ongoing sectarian violence occurring in Pakistan and the surrounding Middle Eastern Nations.

#### **1<sup>st</sup> Place – Santa Clara Valley Model United Nations Conference 2015**

- Represented Serbia in the World Bank and debated with fellow nations about how to best construct financial disaster relief systems and how to increase development in the Philippines.

#### **3<sup>rd</sup> Place – Stanford Model United Nations Conference 2014**

- Simulated the Cabinet of Park Chung Hee in the 1970s. I took the role as the Minister of Unification and fought for the citizens under the developing authoritarian regime of Park Chung Hee and successfully unified North and South Korea under one sovereign state.

#### **3<sup>rd</sup> Place and Research Award – Berkeley Model United Nations Conference 2015**

- Represented Lithuania in Security Council and debated about the issues posed by the Islamic State and Boko Haram.

#### **3<sup>rd</sup> Place – Santa Clara Valley Model United Nations Conference 2014**

- Represented Vietnam in UNHCR, and debated over the refugee crisis in the Democratic Republic of the Congo and the refugee crisis in Syria.

#### **Research Award – Stanford Model United Nations Conference 2013**

- Represented Slovenia in DISEC, and debated over the usage of chemical weapons in Syria and nuclear proliferation in North Korea.

#### **8<sup>th</sup> Place – 52<sup>nd</sup> Annual SCVMA Math Competition in Statistics**

- Competed for my high school in the statistics category and placed eighth place overall.

#### **Level 10 Certificate of Merit from the Music Teachers' Association of California**

- Passed the Certificate of Merit test, which evaluated piano performance, theory, sight-reading, and ear training. This certifies me as a qualified piano instructor.

#### **President's Volunteer Service Award**

- Because of my volunteer service at Kaiser Permanente and having achieved over 275 hours, I was awarded the President's Volunteer Service Award for Community Service Gold Status.

#### **AP Scholar and AP Scholar with Distinction Award**