
Education

Princeton University, Princeton, NJ

Expected June 2021

AB Candidate, Intended Concentration: Computer Science, GPA: 3.7

Coursework: General Computer Science, Algorithms and Data Structure, Programming Systems, Reasoning about Computation

Camas High School, Camas, WA

June 2017

Relevant Coursework: AP Computer Science, Multivariable Calculus, Linear Algebra

Class of 2017 Valedictorian, Unweighted GPA: 4.0

Projects

Grav Attack (iOS Game)

Summer 2018

- Used SWIFT to create gravity-based puzzle and arcade game
- <https://itunes.apple.com/us/app/grav-attack/id1431048988?ls=1&mt=8>

Gaia2read – Princeton Astrophysics Department

Summer 2018

- (50 hr/week, 8 weeks) Worked with Professor Joel Hartman/Exoplanet HAT Project
- Wrote a C program (gaia2read) to query the Gaia Data Release 2. Gaia2read is significantly faster than the official Gaia archive
- Found 85 wide binary companions to known exoplanet star systems

Orbit Sim (iOS Application)

Autumn 2016

- Used SWIFT to create interactive 3D animation of near earth asteroid 2002 KL6 and the terrestrial planets
- Orbital calculations based on Method of Gauss/Keplerian orbital elements rather than Newton's Laws

Summer Science Program (SSP) at New Mexico Tech (residential research program)

Summer 2016

- (100 hr/week, 6 weeks) Orbit determination of asteroid 2002 KL6
- Wrote a package of PYTHON programs for image data analysis, noise reduction, and orbit calculation using Method of Gauss
- University-level Astronomy, Astrophysics, Math, Physics, and Cosmology

Extracurricular Activities

Cadet, Team Leader, US Army Reserve Officer Training Corps (ROTC)

2017 - Present

- Training in leadership skills and physical fitness with the goal of commissioning as an officer in the US Army in 2021
- Participating in physical training three times a week in addition to weekly classes and leadership labs
- Leading a team of four cadets

Advising Fellow, Matriculate Program at Princeton University

2017 - Present

- Advising four low-income, high-achieving high school students through college application process

Princeton Robotics Club and ACM Programming Club

2017 - Present

- Worked with Humanistic Robotics Team on the Dynamics and Control and Vision sub-teams
- Collaborated with peers on coding projects such as an AR Planetarium application

President, Youth Council, Southwest Washington Region, American Red Cross

2013 - 2017

- Coordinated Red Cross Clubs, fundraisers, blood drives, CPR training throughout SW Washington Region
- Spent one month in Kalutara, Sri Lanka to teach PYTHON/computer skills to students and set up a Red Cross youth program

Awards & Honors

Coca-Cola Scholarship National Semifinalist 2016-2017

Cornelius Vanderbilt Scholarship Winner 2016

Presidential Volunteer Service Award 2017

National Merit Finalist 2016

Skills

Programming: C/C++, JAVA, PYTHON, SWIFT, HTML/CSS, MATLAB, IDL

Applications: Microsoft Office, Fusion 360 (CAD)

Language: Speaking, writing, reading proficiency in Spanish