

Travis Zhang

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EDUCATION

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| Hamilton High School , Chandler, AZ | July 2016 – May 2020 |
| <ul style="list-style-type: none">- Weighted GPA: 4.927/5.0, Unweighted GPA: 4.0/4.0- ACT: 36; Math: 36, Science: 36, Reading: 35, English: 35- Courses: Multivariable Calculus, Differential Equations, Linear Algebra, AP Java, AP Physics C: Mechanics and E & M | |
| Cornell University , Ithaca, NY | Sep 2020 – May 2024 |
| <ul style="list-style-type: none">- B.S. in Computer Science | |

TECHNICAL/COMPUTING SKILLS

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- Java, Python, Tensorflow, Keras, Swift, Pytorch, C++, HTML5, CSS3, Autodesk Inventor, Solidworks CAD

EXPERIENCE

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| - HackOurCampus Hackathon | Aug 2020 |
| <ul style="list-style-type: none">- Developed iOS Geofencing app that reminded students to bring both COVID-related and personal items | |
| - ASU Robust Machine Learning Student Researcher | April 2019 – Present |
| <ul style="list-style-type: none">- Applied transformation-invariant constraints on adversarial training using Tensorflow to improve CNN performance. Implemented a variety of algorithms to reduce the computational cost during adversarial training.- Designed and implemented optimization algorithms in Pytorch to fool a Deep RL agent in a realistic scenario. | |
| - University of Central Florida's Competitive Programming Camp | June 2017 |
| <ul style="list-style-type: none">- Learned about various competitive programming algorithms including Dijkstra's algorithm and Prim's algorithm; Competed in 5+ programming competitions at the camp | |
| - ASU Signal, Information, Networks, and Energy Laboratory Student Researcher | Sep 2017 – April 2018 |
| <ul style="list-style-type: none">- Designed program to temporally and spatially interpolate power outputs of solar panels of households in various locations using various python libraries (pandas, numpy, matplotlib) | |
| - Hamilton Robotics Team, <i>Head of Electrical Team</i> , <i>Head of Communications</i> | Aug 2016 – May 2020 |
| <ul style="list-style-type: none">- Designed parts of robot using CAD software; Programmed robot using Java and FRC WPI Library; Recruited & trained 40+ Hamilton members | |
| - Robotics Volunteering, <i>Lead Mentor</i> | Aug 2016 – May 2020 |
| <ul style="list-style-type: none">- Taught URM students from Title 1 schools programming and robot-building process | |
| - Mathworks Math Modeling Challenge, <i>Team Leader</i> | Jan 2019 – Feb 2020 |
| <ul style="list-style-type: none">- Developed and implemented mathematical models to solve real-world problems; Wrote a 15+ page research paper to report experimental designs and results | |

PROJECTS

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| National Honor Society App | July 2019 – Jan 2020 |
| <ul style="list-style-type: none">- Developed both the iOS and Android mobile application for Hamilton's NHS club; Developed and incorporated Google Firebase to create a personalized experience for users | |
| CUSD Equity Symposium App | Nov 2018 – May 2020 |
| <ul style="list-style-type: none">- Developed iOS app for the Chandler school district's annual equity symposium | |
| Skin Cancer Diagnosis using Neural Networks | Aug 2018 – April 2019 |
| <ul style="list-style-type: none">- Built Convolutional Neural Networks (CNNs) and Generative Adversarial Networks in Keras + Tensorflow to improve computer diagnosis of skin cancer. | |

HONORS AND AWARDS

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- Association of Chinese American Physicians Bronze Prize (Nov 2020)
 - Arizona Science and Engineering Fair 3rd place (April 2019)
 - Arizona Science and Engineering Fair 3rd place (April 2016)
 - Arizona Junior Science and Humanities Symposium 2nd place (April 2016)