KENNY DURAN

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EDUCATION

California Institute of Technology, Class of 2020

Candidate for Physics major and CS minor

Overall and in-major GPA: 3.7/4.0

Selected Coursework: Complex analysis and ODEs; Partial Differential Equations; Linear Algebra; Real Analysis; Intro to Computer Programming; Intro to Programming Methods; Physics Laboratory; Waves, Quantum Physics, and Statistical Mechanics; Classical Mechanics and Electromagnetism; Probability and Statistics; Analogue electronics for Physicists; Discrete Mathematics; Proof-based ODEs

RESEARCH

High-school and MIT – Bronx, NY and Cambridge, MA Jan 2015- Apr 2015

- Researched and submitted a paper on "The Relationship Between Morality and the Advancement of Science and Technology in the United States" to MIT Inspire research competition.

Caltech – Pasadena, CA Jul 2016 – Aug 2016

- Participant in Freshman Summer Research Program. Aided with research on the viscous behavior of oil sands in Venezuela and Alberta, Canada with respect to temperature and pressure.

NASA Jet Propulsion Laboratory – Pasadena, CA Jul 2017 – Sep 2017

- Will be author on paper on a long-term study of Saturn's atmosphere as imaged in the near-infrared at NASA's Jet Propulsion Laboratory, with primary contributions being reduction of signal-to-noise ratio on data reduction program and analysis of data.

Comin Photon Scattering Laboratory at MIT – Cambridge, MA Jul 2018 – Sep 2018

- Worked on designing and implementing a Python program capable of solving the phase retrieval problem for the reconstruction of nanoscale images from their diffraction pattern intensities for several Coherent Diffractive Imaging experimental methods. To be used on data collected at the Brookhaven National Lab NSLS-II.

SKILLS

Programming

Languages: Python, C++, C, Ruby, Mathematica, LaTeX, Matlab

Software: Tensorflow

Hardware

Ph 5: Course on construction and analysis of analogue electronics (Caltech, Fall of 2017)

- *Designed and built analogue graphing calculator with an oscilloscope*

Personal Projects

- *Designed and implemented a simple Cards Against Humanity card generator in Ruby. (2015)*
- *Built mini singing tesla coil. (2017)*

Awards and Acknowledgements

- 97th percentile junior ranking chess player USCF (peak rating: 1959 USCF in 11th grade)
- Awarded full scholarship to Cornell Summer College (Summer of 2015)
- Finalist at MIT Inspire research competition