Joseph Corrado

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EDUCATION

NEW YORK UNIVERSITY

BA in Physics
May 2019| New York, NY
Secondary Major in Mathematics
College of Arts and Sciences
Cum. GPA: 3.7 / 4.0

LINKS

Github:// **jcorrado76**
LinkedIn:// **joseph-corrado-9737b2a6/**

COURSEWORK

UNDERGRADUATE

Computational Particle Physics (Research Asst.)
Grad Computational Physics
Graduate Probability and Statistics
Quantum Mechanics
Electricity and Magnetism
Dynamics
Linear Algebra
General Relativity
Object Oriented Programming

SKILLS

PROGRAMMING LANGUAGES

- Python
- Scientific Computing
- C++ (ROOT framework)
- Mathematica
- LaTeX
- VBA

EXPERIENCE

NYU PHYSICS DEPARTMENT | Quarks to Cosmos Course Assistant

January 2018 – May 2019 | New York, NY

- Assisted in the instruction of classes, as well as providing solutions manuals to homeworks, and support to the students.

NYU PHYSICS DEPARTMENT | General Physics I Tutor

September 2017 – December 2018 | New York, NY

- Tutored introductory physics to students in the college of arts and sciences.

COURANT INSTITUTE OF COMPUTATIONAL SCIENCES | Calculus and Linear Algebra Tutor

September 2016 – May 2017 | New York, NY

- Tutored Calculus I, II, III and Linear Algebra for the department.

RESEARCH

NYU EXPERIMENTAL PARTICLE PHYSICS | Undergraduate Research Assistant

September 2018 – Present | New York, NY
Worked with Prof Kyle Cranmer to work on contributing to a statistical analysis package pyhf (Python HistFactory) in order to facilitate generating statistical models with uncertainties due to several different sources of background noise.
I am working on implementing a gaussian process in order to interpolate a continuous parameter describing the effects of different sources of background, given signal data.

NYU EXPERIMENTAL PARTICLE PHYSICS | Undergraduate Research Assistant

September 2016 – Present | New York, NY
Worked with Prof Allen Mincer to perform an analysis of the efficiency of algorithms used at the ATLAS experiment at CERN.
Determined thresholds needed to combine algorithms such that we get a higher efficiency.
Contributed Algorithm Design to ATLAS Collaboration at the Large Hadron Collider.

CENTER FOR SOFT MATTER | Undergraduate Research Assistant

May 2016– September 2016| New York, NY
Studied random organization of particles in an immulsion when an external periodic shearing force is applied. Prof Paul Chaikin

AWARDS

2018	Physics Scholarship	Farres P. Mattar Memorial Scholarship Recipient
2017	Fall NYU DURF	Dean's Undergraduate Research Fund Recipient

SOCIETIES

2017	National	Sigma Pi Sigma Physics Honor Society