

Unique Divine

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EDUCATION - Undergraduate GPA: 3.7

Columbia University in the City of New York, (Graduated Spring 2020)
Bachelor of Science: Applied Physics; concentration in Applied Mathematics
Master of Science: Applied Mathematics (In Progress; EGD 2021)
Susquehanna University (Graduated Spring 2020)
Bachelor of Science: Physics; minor in Computer Science

SKILLS

Programming: Python (proficient, 4yrs), Bash/Shell, Git, SQL, Matlab
Libraries: TensorFlow, NumPy, Pandas, Matplotlib, SciPy, Scikit-learn, Pyraf, Keras
Other: Japanese (advanced/fluent, ~3yrs), Saxophone, Excel

RELEVANT COURSEWORK

Graduate Level Courses:

Machine Learning for Data Science (taken at [Columbia University's DSI](#)),
Probability and Statistics, Partial Differential Equations

Undergraduate Courses:

Probability Theory, Principles of Computer Science (Python), Computational Linear
Algebra with Python Labs, Discrete Mathematics and Combinatorics

PROJECTS - ([more at github.com/Unique-Divine](https://github.com/Unique-Divine))

- » [Click-Through Rate Prediction with Stochastic Gradient Descent](#)
- » [Neural Networks for Gravitational Lens Modeling](#)
- » [Fraudulent Banknote Classification with Decision Trees from Scratch](#)

WORK EXPERIENCE

University of Illinois Urbana-Champaign Physics REU (May 2019 – Aug 2019)
Undergraduate Research (Machine Learning), with Dr. Joaquin Vieira
Developed, trained, and implemented convolutional neural networks that predict
gravitational lensing parameters for use in cosmology research with Python (TensorFlow).

Columbia University (Jan 2019 – May 2019)
Undergraduate Research (Astrophysics), with Dr. Marcel Agüeros
Performed spectral reduction, a method for correcting artifacts and instrumental defects in
stellar spectra, with Pyraf, building fluency and efficiency working at the command prompt

Lehigh University Physics REU (May 2017 – Aug 2017)
Undergraduate Research (Biophysics), with Dr. Slava Rotkin.
Developed techniques for localization of carbon nanotubes inside of the neural stem cells

Susquehanna University (Jan 2018 – May 2018)
Undergraduate Research (Quantum Physics), with Dr. Carl Faust
Analyzed interacting states of ultracold NaCs molecules, creating a relational
database (in Excel) to quickly parse information from experimental results

Teaching Assistant & Tutor: Courses: Calculus 1, Physics 1 & 2 (Aug 2016 – May 2018)