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 with concentration in Applied Mathematics
Master of Science: Applied Mathematics in the Fall of 2020 (In Progress)

SKILLS

Programming: Python (proficient, ~4yrs), Bash/Shell, Git, SQL
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)

» 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 Researcher (Machine Learning)**, with Dr. Joaquin Vieira*
Developed, trained, and implemented a convolutional neural network that predicts gravitational lensing parameters for use in cosmology research with Python.

Columbia University (Jan 2019 – May 2019)
***Undergraduate Researcher (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 Researcher (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 Researcher (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: Courses: Physics 1, Physics 2 (Aug 2016 – May 2018)
Tutor, Courses: Calculus 1, Physics 1 & 2 (Aug 2017 – May 2018)