Anna Kwa

Seattle, Washington

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Skills

Languages & Tools Python (SciPy, NumPy, Matplotlib, Scikit-learn, Pandas, BeautifulSoup, NLTK), Git, SQL, Flask, Amazon Web Services

Data Science Feature engineering, regression, classification, natural language processing, dimensionality reduction, time series, MCMC parameter estimation

Experience

Insight Data Science Fellow

Insight Data Science, Seattle *2018*

- Built a Flask web app to recommend accessories that best enhance an outfit's color palette.
- Developed image processing and color clustering pipeline to extract color palettes from >17,000 contemporary fashion images, then used resulting feature vectors to train a regression model to predict tasteful color combinations.
- Implemented facial recognition algorithm to assist in locating torso and clothing in images.
- Web scraped properties of >10,000 Nordstrom inventory items to use as recommendation database.

National Science Foundation Graduate Research Fellow

Dept. of Physics & Astronomy, UC Irvine *2014 - 2017*

- Performed MCMC parameter estimation on sample of 130 high-resolution galactic rotation curves to test multiple particle models of dark matter.
- Modeled astrophysical emission in the galactic center using >3 GB of gamma-ray data to search for potential signal of dark matter annihilation.
- Lectured in relativity & cosmology and created a cosmology and particle physics research project curriculum for high school summer students.

UC Irvine Data Science Initiative

UC Irvine *2016 - 2017*

- Instructor for workshop in Python & predictive modeling.
- Teaching assistant for NASA Data Intensive Research and Education Center for STEM (DIRECT-STEM) undergraduate workshop in Python & predictive modeling.

Independent projects

UC Irvine *2016 - 2017*

- Used natural language processing to analyze OkCupid essay responses and predict the demographics of the author (∼70% accuracy when predicting gender).
- Constructed periodograms of stellar radial velocities in order to identify potential exoplanet systems in public Keck Observatory data.

Education

Ph.D., Physics *Dec. 2017*
University of California, Irvine *Irvine, CA*

B.S., Physics and Astronomy *Jun. 2011*
The Ohio State University *Columbus, OH*