Junlan Lu (Jaqueline)

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University of California, Los Angeles as *Computer Science Major* **(**GPA: 3.3) Fall 2018 - Present

Experience

Research Assistant at *UCLA (Professor Tward's Neuroimaging lab)* June 2020 - August 2020

- Quantify the distribution of cell types in the human brain, and what is the pattern of distribution.
- Brain atlasing: take data from a lot of individuals, and then deform it into one average brain to learn about what different individuals have in common, and what is different between them.

Data Science Intern at *Redux Recycle* May 2020 - Present

- Design a model with algorithms that detect and classify the objects throwing into the trash bin.
- From data cleaning and model designation, create a prototype that could separate paper cup, plastic bag, can, glass bottle, plastic bottle and chip bag using machine learning classification model.

Data Specialist at *Rainforest Connection (RFCx)* March 2020 - May 2020

- Train the AI model (chainsaw), review alerts from the acoustic monitoring machines put in the ecosystems to improve the ML models.
- Perform feature engineering and model selection on acoustic data collected.

Projects

Machine Learning-based Super-Resolution MRI Tensorflow | Medical Imaging

- Revise and perform Google RAISR algorithms and Deep Learning on the high-resolution MRI image data of the brain and improve the resolution of the image system to super-resolution.
- Evaluate the accuracy of the improved DL models on the context of MRI super-resolution imaging.

NYC Taxi Rides Duration Prediction Machine Learning | Kaggle

The large dataset includes about 100k rows.

- Perform data selection and EDA based on data visiualization drawn to filter out the data that are most related, and do feature engineering (PCA to divide up the map of Manhattan into regions)

- Try different different regression models (linear, Lasso, Ridge, SVR etc.) and make better use of the features by putting different weights.

Scrapy: House on Rent and on Sale Python | SQL

Using Python (requests and beautiful soup) and SQL to capture the housing rent and sale on certain websites, given the input from users specifying the name of the city and number of outputs. It collects the information and transforms to an Excel spreadsheet that is used to create data visualization.

Skills

- C/C++, Python (numpy, scikit-learn, matplotlib, seaborn), Tensorflow/PyTorch, shell, javascript, SQL
- Software: Microsoft Office, Adobe Premiere Pro

Related Courses

Data Science Fundamental, Intro to CS (C++ and data structure), Machine Learning, Fundamentals of Artificial Intelligence, Algorithms in Bioinformatics, Computational Methods in Medical Imaging, Intro to Probability and Statistical Reasoning, Algorithm and Complexity