

Junlan Lu (Jaqueline)

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

Experience

Research Analyst at UCLA BIG Summer with Prof. Tward Machine Learning June - August 2020

- Use scattering downsample such as gaussian and image registration to process neuroimages
- Utilize machine learning algorithms like LDA and RandomForest to predict microstructures in the brain with 80% accuracy

Data Science Intern at Redux Recycle Pytorch CNN | Classification May - August 2020

- Perform data cleaning and image augmentation to extract information and classify recycling objects
- Use CNN model with Pytorch to learn massive recycling objects datasets, and predict their classes

Data Specialist at Rainforest Connection (RFCx) March - 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

Google Landmark Recognition Tensorflow | Computer Vision | Kaggle

- Using Tensorflow backend to first rank all training images by embedding similarity to test images, then performs geometric verification and re-ranking on most similar training images using KD tree
- Fine-tune parameters to achieve a bronze medal on leaderboard

Flower Recognition Tensorflow | Pytorch | Kaggle | Computer Vision

- Build a deep learning model using densenet169 in Pytorch and the one using efficientnet B7 in Tensorflow to classify 104 classes of flowers
- Try with TPU to achieve 97% accuracy within 50 epochs in top 8% on leaderboard

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.

Skills

- C/C++, Python (numpy, scikit-learn, matplotlib, seaborn, requests, bsoup), PyTorch/Tensorflow, 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, Deep Learning for Computer Vision, Algorithms in Bioinformatics, Computational Methods in Medical Imaging, Intro to Probability and Statistical Reasoning, Algorithm and Complexity