Phillip Kuznetsov

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EDUCATION

University of California Berkeley
Electrical Engineering and Computer Science
BACHELOR OF SCIENCE - EXPECTED SPRING 2018 ***GPA: 3.875***

Relevant Courses: Machine Learning, Neural Computation, Algorithms and Data Structures, Discrete Mathematics and Probability

EXPERIENCE

Machine Learning at Berkeley
Co-Founder and Director of Education
DECEMBER 2015 - PRESENT

Founded Berkeley's first machine learning club to introduce students to real-world ML problems. Lead the research division, which currently hosts 5 projects. Currently focused on education efforts, including the inception of a data science course (kaggledecal.github.io) and workshops on Deep Learning and TensorFlow. Repos located at github.com/mlberkeley.

Location Labs - *Data Science Intern*
JUNE 2016 - SEP 2016

Used machine learning to determine whether a user's location is safe or unsafe. Employed clustering and markov models for classification. Data was sourced from Location Labs's family safety apps and combined with crime data from the US city open census to make predictions.

Evans and Sutherland - *Software Engineering Intern*
JUNE 2015 - AUGUST 2015

Built tools for Digistar Dome Theater. Projects included writing an orbit shader and revamping the locale translation utility.

ON-GOING PROJECTS

OpenBrain
Researching backpropagation algorithms for neural networks. Extension of the deep-rl architecture proposed by DDPG (https://arxiv.org/pdf/1509.02971.pdf). Exploring modifications of the actor-critic paradigm described in the paper to support asynchronous backpropagation updates. Built using TensorFlow.

RL - Stock Trading
Building a stock trading system that uses daily stock highs, lows, and changes in price to buy and sell stocks. First iteration uses a linear model trained with reinforcement learning. Implementing a system that uses deep-rl instead. Built using Spark and Keras.

Artistic Style Matching
Researching how to modify the style loss function proposed in Artistic Style Transfer (http://arxiv.org/abs/1508.06576) to featurize and cluster images based on similar styles. Built using Keras.

LANGUAGES

Python
Java
JavaScript
HTML / CSS
Erlang
C++

TECHNOLOGIES

Keras
TensorFlow
SKLearn
Docker
AWS
MeteorJS
Flask

OPERATING SYSTEMS

OS X
Linux
Windows

PAST PROJECTS

Fractals (2016)
Python Library that implements a wide range of visual fractals.

MusicGen (2015)
Music Generation based on input tempo.

Gene Engine (2014)
Parasite-Host Coevolution Model.

All project repos available on Github