Phillip Kuznetsov

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EDUCATION

University of California Berkeley – Undergrad, EECS 2018
Relevant Courses: Computational Photography, Graphics, Computer Vision, Machine Learning, Probability and Stochastic Processes, Algorithms, Convex Optimization

EXPERIENCE

Berkeley AI Research

ADVISOR: ALYOSHA EFROS; FEBRUARY 2018- PRESENT

Currently working on a Deep Learning system to determine whether a Music-Video is good or not. Dataset of human ratings for music-video pairs collected via Mechanical Turk. Architectures experimented with so far include I3D for video representation and VGGish for audio representation.

Alinea AI

MARCH 2018 - PRESENT

Deep learning and data science consultancy. Previous projects include predicting movements in cryptocurrency markets and predicting customer behavior using financial securities data.

Machine Learning at Berkeley – *President*

DECEMBER 2015 - MAY 2018

Founded Berkeley's first machine learning club. Grew the organization to 80 members ranging from Freshman to PhD students. Through the club, I've also conducted research, taught courses and lead workshops on topics like "Making Art with Deep Learning" . All project/event repos located at github.com/mlberkeley.

Adobe Research

ADVISOR: BRYAN RUSSELL; MAY 2017 - AUGUST 2017

Extended a video action recognition deep learning model for Adobe Stock Videos to create a better feature representation for Adobe Stock's search functionality.

Amazon Alexa Prize

ADVISOR: JOHN DENERO; NOVEMBER 2016 - AUGUST 2017

One of the sponsored teams entered in the inaugural Alexa Prize competition. Given a $100k research grant and unlimited to AWS to build a conversational chatbot. See proceedings paper.

PAST RESEARCH PROJECTS

CANs – ML@B
Implementation and extension of Creative Adversarial Networks – Repo received 62 stars on Github. Future work planned to extend the model to use the WGAN-GP objective function and then Progressive Growing of GANs.

Transferability of Adversarial Attacks in the MAML Framework
We propose a series of experiments designed to test the susceptibility of MAML to adversarial attacks. Paper. Accepted to the 2017 Deep Learning Security Workshop in Singapore chaired by Prof. Dawn Song.

LANGUAGES

Python
Java
JavaScript
HTML / CSS
C++
C#

TECHNOLOGIES

Python
Java
JavaScript
HTML / CSS
TensorFlow
Caffe
Docker
AWS/Google Cloud
Mechanical Turk

PUBLICATIONS

Artificial Intelligence Safety and Security Textbook
Chapter on Adversarial Machine Learning
First author on Adversarial Machine Learning chapter. To be published in August 2018. Preprint chapter.

O'Reilly Blog – 2017
Generating Images with PixelRNNs.
O'Reilly article on using TensorFlow to generate novel images using PixelRNNs. Written to be easily accessible for newcomers to TensorFlow. Link to article.