

Danny Luo

Xiao Luo | luoxiao96@hotmail.com | dluo.me | github.com/PiercingDan | linkedin.com/in/dannyluo

Skills & Experience

Overview

- Machine learning, neural networks, and their implementations
- Distributed computing with Spark on AWS, Azure and Databricks
- Extraction, transformation and load of large datasets, big data cleaning and processing

Tools

<i>General</i>	Python, Scala, R, SQL, Shell Scripting, Git, Blockchain
<i>Big Data</i>	Apache Spark, AWS, Azure, Databricks
<i>Speciality</i>	TensorFlow, Keras, Spark ML, NumPy, Scipy, Matplotlib, Scikit-learn, Pandas
<i>Other</i>	Public Speaking & Presentation, Communication, Collaboration, Leadership

Projects

Residential Real Estate Valuation

- ◆ Used XGBoost in Python on AWS EC2 to predict UK housing prices
- ◆ Data ETL from SQL database, data pre-processing in python

Optimal Digital Map Placement in Toronto — 3rd place project at HackOn(Data)

- ◆ Employed unsupervised machine learning on transit, cultural centre and mined social media data to pinpoint and rank hotspots in Toronto for optimal map placement

Guide: Spark with Jupyter on AWS

- ◆ Created guide on launching Spark clusters with Jupyter on AWS EC2 with S3 I/O

Neural Network Library for Image Analysis (Stanford cs231n)

- ◆ Created Neural Network (CNN, RNN, GAN) architecture, layers in Python

Groups

University of Toronto Data Science Team — Kaggle Team

- ➔ Created infrastructure for big data deep learning on EC2 GPU instances with S3
- ➔ Processed lung CT images and satellite images on EC2 for deep learning

Toronto Apache Spark Meetup

- ➔ Gave presentation & demo on how to set up Spark with Jupyter on AWS
- ➔ Participated in weekly HackOn(Data) workshops to learn Spark on Databricks

Education

2014 - present **University of Toronto, Candidate for Bachelor of Science, Class of 2018**
Mathematics and Physics Specialist - CGPA: 3.97

Employment

5/2017 - 8/2017 **Software Developer, Co-op** — *ZeroGravityLabs, LoyaltyOne*

- Investigated blockchain solutions for AirMiles on Ethereum, Quorum, Multichain
- Automated Ethereum blockchain deployment on AWS EC2
- Processed large datasets of transactions in Spark on Azure HDInsight

2015 - present **Teaching Assistant** — *UToronto Dept. of Mathematics*

- Effectively communicated abstract mathematical concepts in classroom setting

5/2016 - 8/2016 **Particle Physics Research Intern** — *UToronto Dept. of Physics, NSERC USRA*

- Analyzed CERN LHC data for Higgs Boson in Python, C++

5/2015 - 8/2015 **Astrophysics Research Intern** — *UWaterloo Dept. of Astronomy, NSERC USRA*

- Analyzed large galaxy datasets to find relationships between galaxy features

Awards

2017	Coexter Scholarship in Mathematics
2016	3rd Place at HackOn(Data)
2016	C.L. Burton Scholarship for Math and Physical Science
2016/15	NSERC Undergraduate Student Research Awards
2016/15/14	University College Howard Ferguson Provincial Scholarship
2015	University of Toronto Scholars, 150 recipients per year of study
2015	Dr. James A. & Connie P. Dickson Scholarship in Science and Math