# **ANNMARGARET TUTU**

# Machine Learning Software Engineer

More information and projects available at codeamt.github.io, LinkedIn and GitHub.

# **Selected Projects**

<u>WindFarmSpotter</u> an end-to-end deep learning pipeline for classifying wind farm capacity; inference APIs developed for SWAP/IoT hardware.

<u>BitcoinPySpark</u> a multivariate time series forecast/linear regression model for bitcoin market price; Spark runtime implementation in Colab. Achieved RMSE of 37.16 and r2 score of 98.6.

Federated Deep Learning Demo a privacy-centric transfer learning demo Secure Multi-Party Computation (SMPC) achieves 98% accuracy on MNIST.

Malaria Blood Sample Classifier a binary classification algorithm for Malaria blood smear samples; developed using PyTorch/fast.ai.

## **Relevant Experience**

# Software/Research Engineer - Machine Learning

Freelance | January 2015 - Present

- Implemented 10+ learning pipelines using PyTorch/PySpark/TensorFlow
- Skilled at automating data engineering; visualizing/augmenting techniques
- Proficient in applying machine learning methods/tuning deep networks
- Experience interfacing with a variety of data stores; writing SQL queries
- Pivoting to Al with 3+ years of DevOps/software engineering experience

# Co-founder, Lead Developer/Growth Hacker

Blagbox, LLC | March 2015 - December 2017

- Optimized marketing channels for search for creative brands and SMBs
- Developed 15+ web landing pages/ecommerce sites with digital assets
- Managed social listening tools for analytical insights on KPIs/A/B Testing

#### **Data Visualization Engineer (Remote)**

Pagos, Inc. | September 2014 - March 2015

- Reported to the CEO on a remote, startup team of engineers/marketers
- Develop 10+ Tableau-like dashboards/video tutorials to support sales
- Published a whitepaper on enterprise Business Intelligence (Bi) SQL stacks

## **Education**

#### **Bachelor of Science, Film & Television**

Boston University | May 2013

# **Android Development Nanodegree**

Grow With Google Scholarships, Udacity | March 2019

# **Advanced Data Science Specialization**

IBM, Coursera || February 2019

#### **Deep Learning Specialization**

deeplearning.ai, Coursera || March 2018

#### **Contact Information**

**867-600-9277** 

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#### Frameworks/Tools

Libs: PyTorch, TensorFlow, PySpark Runtimes: Jupyter, Spark, SWAP APIs: Flask, Swift 5 (Server-Side) Mobile: PyTorch Mobile, TF Lite Dev: Git, Linux, SSH, Docker

#### Skills/Proficiencies

Computer Vision / NLP

Reinforcement Learning

Regression/Forecasting

Hardware Acceleration

**Data Processing** 

Automating/Documentation

## **Research Communities**

Working Group Researcher

MD4SG | 2019 - Present

International Fellow fast.ai Live || 2019

**Diversity & Inclusion Fellow** ICML || 2019

#### **Peer Reviewer**

NeurlPS Conference | 2018, 2019