Trinh Hoang Trieu

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Education

2013 – present	Bachelor of Science Advanced Program in Computer Science	Ho Chi Minh University of Science Vietnam National University

Research Internships

May 2016 – July 2016	Misfit Wearables Inc. Description: N/A	Deep Learning Machine Vision – Object Detection
January 2016 – March 2016	Japan Advanced Institute of Science and Technology	Deep Learning Natural Language Processing

- Translate original Theano code to Tensorflow, experiment new models on new data.
- Implemented: LSTM, GRU, CNN-LSTM with Tensorflow on top of Mikolov's word2vec embeddings.
- Improved vanilla Convolutional baseline for Question Classification on Vietnamese TREC dataset.

June 2015 – September 2015 | Ecole Polytechnique de Montreal | Educational Data Mining (EDM)

- Build a computational graph as an open sourced R package to perform educational data synthesizing.
- Automate learning parameters and generating new data under 11 standard models of EDM.

Open-sourced Projects

August 2016 - present | Darkflow ★104 | Python, Tensorflow

- A visual oriented deep learning application, with Tensroflow back-end.
- Allows designing the deep net in text format, training and freezing the graph for mobile development.
- Compatible with Darknet framework: load / partial load / extract binary weights.
- Current working models: YOLOv1 and YOLO9000 – real time object detection and classification.
- Trained a new YOLO model for object detection and classification in office setting (four classes).
- Featured as a **Awesome Tensorflow repository**.

December 2016 - present | Essence | C, Cython, Python, Numpy

- A symbolic, Directed Computational Graph constructor.
- Auto differentiation and unit testing for gradient of all modules supported.
- Working Feedforward modules: fully connected, convolution, batch normalization, dropout.
- Working demo models: Depth-2 MLP, LeNet with Batch Normalization, **Long Short Term Memory** on Word2Vec for sentence classification, **Neural Turing Machine** for copying task.

December 2015 – May 2016 | Educational Data Synthesizer | R

- Extend the functionalities of the R package built during first internship.
- Allow customizing the built-in models and adding new nodes / interactions / models to the graph.

March 2016 – June 2016 | Last Layer of DeepNets | Python, Tensorflow

- Modify the last layer of deep classifier, experiment on SVM and LDA.
- Replace the soft-max with soft-margin Support Vector Machine, One-Vs-All scheme.
- Experimented adding a regularizer to encourage feature separability for SVM training.

Honor, Awards and Scholarships

2016	Wilmar CLV's top 27 students to present at Project presentation round
2016	Japan Student Services Organization (JASSO) Scholarship for Research
2015	America Chamber of Commerce scholarship
2015	Mitacs Globalink Research Full Scholarship
2014	Full Scholarship for First Ranked Student of the Year
2013	Full Scholarship, University Entrance Valedictorian.
2012	Bronze medal – Southern Vietnam Mathematics Olympiad Third prize – Provincinal Competition