Trinh Hoang Trieu

https://thtrieu.github.io
+84.129.303.1269

Education

2013 – present *GPA: 3.90 (May 2016)*	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.	Deep Learning for Machine Vision

- Work with Tensorflow, Caffe, *bring Deep Learning models onto mobile devices.*

January 2016 – March 2016	Japan Advanced Institute of Science and Technology	Deep Learning for Natural Language Processing

- Translate original *Theano code to Tensorflow*, experiment recurrent models on new dataset.
- Implemented: *Long Short Term Memory, Gated Recurrent Unit, 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 (on going)	Darkflow ★130	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 production environment.
- Compatible with Darknet framework: load / partial load / selectively extract binary weights.
- Current working models: YOLOv1 and the new **YOLO9000** – real-time object detection and classification.
- Trained a new YOLO model for object detection and classification in office setting (four classes).
- Selected as an **Awesome Tensorflow** repository.

January 2017 – present (on going)	Essence	C, Cython, Numpy

- Directed Acyclic computational Graph constructor **built from scratch**, with **auto differentiation.**
- Notable demo models: LeNet with Batch-Normalization, LSTM on word embeddings for sentence classification, **Visual QA** with VGG16 and stack-3 LSTM features, **Neural Turing Machine** for copy task.
- Working optimizers: vanilla Stochastic Gradient Descent, RMSProp and ADAptive Momentum estimator.
- A selected coding project on **A Wild Week in A.I.** newsletter (issue 35).

December 2015 – May 2016	Educational Data Synthesizer	R (Statistical Computing Language)

- Version 2.0, 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 a deep classifier, experiment on SVM and Linear Fisher Discriminant.
- Replace the soft-max with the above linear classifiers and perform classification in One-Vs-All scheme.
- Experimented adding a regularizer to encourage feature separability for SVM training.

Honor, Awards, and Scholarships

2016	Wilmar CLV's top 24 students to present at Project presentation round (top 15%)
2016	Japan Student Services Organization (JASSO) Scholarship for Research (top 10%)
2015	America Chamber of Commerce (AmCham Vietnam) scholarship (top 12%)
2015	Mitacs Globalink Research Full Scholarship (top 7%)
2014	Full Scholarship for First Ranked Student *with Highest GPA* of 2013 - 2014
2013	Full Scholarship, University Entrance Valedictorian
2012	Bronze medal – Southern Vietnam Mathematics Olympiad Third prize – Provincial Competition