# **Trinh Hoang Trieu**

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#### **Education**

2013 – present,	Bachelor of Science,	Ho Chi Minh University of Science,
GPA: 3.90 (May 2016)	Advanced Program in Computer Science	Vietnam National University (VNU)

### **Research Internships**

May 2016 – July 2016 Misfit Wearables Inc. Deep Learning for **Computer Vision** 

- Work with Tensorflow, Caffe; bring Deep Learning models onto mobile devices.
- Developed two vision applications on iDevices (Objective C++)

January 2016 - March 2016

Japan Advanced Institute of Science and Technology

Deep Learning for **Natural Language Processing** 

- Translate Theano code to Tensorflow.
- Experimented: *LSTM*, *GRU*, *CNN LSTM* on Mikolov's Word2vec embeddings.
- Improved Convolutional baseline for Question Classification on TRECvn dataset (91.8% to 94.2% accuracy).

June 2015 – September 2015

Ecole Polytechnique de Montreal

**Educational Data Mining (EDM)** 

- **Build computational graph** as an open sourced <u>R package</u> for educational data synthesis.
- Automate learning parameters and generating new data under 11 standard models of EDM.

## **Open-sourced Projects**

December 2015 – May 2016

**Educational Data Synthesizer** 

R (Statistical Computing Language)

• Extended package: allow customize built-in models, add new nodes/ interactions/ models to the graph.

August 2016 – present (on going)

**Darkflow** 

**161** 

Python, Tensorflow

- Designing deep nets in text format, train and freeze the graph for production.
- Compatible with Darknet framework: load / partial load / selectively extract binary weights.
- Current working models: YOLO and **YOLO9000** (state of the art real-time object detection and classification).
- Selected as an **Awesome Tensorflow** repository.

### January 2017 - present (on going)

**Essence** 



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C, Numpy

- Directed Acyclic computational Graph constructor built from scratch, with auto differentiation.
- Notable demos: LeNet with BatchNorm, Deep Q-Learning for inverted pendulum control, Visual Question
  Answering with VGG16 and stack-3 LSTMs on GLOVE features, Neural Turing Machine for copying task.
- Working optimizers: SGD, RMSProp and ADAptive Momentum estimator.
- A selected coding project on **A Wild Week in A.I.** newsletter (issue 35).

### **Honor and Awards**

2016	Wilmar CLV's top 24 students to present at Project presentation round (top 15%)
2016	Asian Undergraduate Summit on Smart City (Singapore) $-$ <b>10 selected students</b> from Vietnam National University System of <i>7 member universities</i> .
2016	Japan Student Services Organization (JASSO) Scholarship for Research student.
2015	America Chamber of Commerce (AmCham Vietnam) scholarship (top 12%)
2015	Mitacs Globalink Research Full Scholarship (top 7%)
2015	International Student Festival in Trondheim – Vietnamese Delegate International Student Week in Ilmenau – Vietnamese Delegate
2014	Full Scholarship for First Ranked Student with Highest GPA of 2013 - 2014
2014	Your Online Learning Assistant (YOLA)'s Full Scholarship (top 1%)
2013	Full Scholarship, University Entrance Valedictorian
2012	Southern Vietnam Mathematics Olympiad Medalist