

Khoi Nguyen

📍 2048 Kelly Engineering Center, Corvallis, OR, 97331, USA

☎ +01 503 701 7002

✉ nguyenkh@oregonstate.edu

🌐 <https://github.com/ducminhkhoi>

🌐 <https://www.linkedin.com/in/nguyenducminhkhoi/>

🏠 <http://nguyenducminhkhoi.com/>

Research interests: Computer Vision, Deep Learning, Machine Learning

EDUCATION

Fall 2015 – Spring 2020
(expected)

Ph.D. in Computer Science

Oregon State University, Corvallis, OR 97331, USA

- Research Interest: Computer Vision, Machine Learning
- Advisor: Prof. Sinisa Todorovic

Fall 2015 – Summer 2017

Master of Science in Computer Science

Oregon State University, Corvallis, OR 97331, USA

- Thesis: "Relational Networks for Visual Relationship Detection",
- Advisor: Prof. Sinisa Todorovic (GPA 3.71/4)

Fall 2009 – Spring 2014

Bachelors's degree in Computer Science

Bach Khoa University (HCMUT), HCMC, Vietnam

- Thesis: "Entity Disambiguation System based on Wikipedia", advisor: Prof. Tru Cao
- Top-5 student in Computer Science Program (total 330 students), (GPA 8.51/10)

SKILLS/ EXPERIENCE

Research Experience

- **Action Recognition** (Python, Keras), a research project that implements a research paper of action recognition by using LSTM - https://github.com/ducminhkhoi/lstm_tracking
- **Visual Relationship Detection** (Python, Pytorch), a novel research on Visual Relationship Detection by using Object Detection, Message Passing technique - <https://github.com/ducminhkhoi/VRED>
- **Capsule Network** (Python, Pytorch), a research project that extend the Capsule Network by Hinton et al. Instead of using max-pooling that discards the relative position information between neurons, they use a mechanism called routing by agreement to route information from lower layer capsule to higher layer capsule forming the part-whole relationship. https://github.com/ducminhkhoi/EM_Capsules
- **Video Understanding** (Python, Pytorch), a research project that understand and explain some basic tasks in video like action recognition, action segmentation through space and time using attention map and excitation back-propagation (on going project)

Course Experience

- **Artificial Intelligence**, final project (Python): solving 2048 game with heuristic based algorithms and Monte Carlo Tree Search algorithm - https://github.com/ducminhkhoi/2048AI_solver
- **Machine Learning**, final project (Matlab): detecting falling action in videos using Support Vector Machine and Hidden Markov Model - <https://github.com/ducminhkhoi/FallDetection>
- **Deep Learning**, final project (Python, Keras): Image Captioning - generating description from images - <https://github.com/ducminhkhoi/Image-Captioning>
- **Reinforcement Learning**, final project (Python, Pytorch): playing Flappy Bird and other simulation games such as Bipedal Working, Lunar Landing using DQN, A3C and DDPG algorithm - <https://github.com/ducminhkhoi/DRL>

Teaching Experience Teaching Assistant at Bach Khoa University (HCMUT), HCMC, Vietnam

- Introduction to Programming, Fall 2014
- Principal of Programming Language, Fall 2013
- Artificial Intelligent, Spring 2013
- Data Structure and Algorithm, Fall 2012

Training Experience Bach Khoa University (HCMUT), HCMC, Vietnam

- Introduction to Python Programming, Fall 2012 (15 students)
- Introduction to Web Development (HTML, CSS, Javascript), Fall 2013 (30 students)
- Introduction to Android Programming, Fall 2014 (50 students)

Internship Experience ELCA Informatique SA, Ho Chi Minh City, Vietnam (Summer 2012)

- Job's position: Java Software Internship
- Job's description: Develop web application using Spring MVC Framework

Leadership Experience

- Google Student Ambassador (June 2013 to May 2014)
- Class Monitor of Honor Student Program (September 2010 - April 2014)
- Vice President of English Speaking Club (September 2010 - April 2011)

Programming Languages Python - Professional (daily use)

- Scientific frameworks: Numpy, Scipy, Matplotlib, Scikit-learn
- Deep Learning frameworks: Keras, Pytorch, TensorFlow

Other languages:

- C/C++ and Matlab - Intermediate
- Java, C#, Javascript - Have some experience

ADDITIONAL INFORMATION

References References upon request

Awards/Scholarships

- Vietnam Education Foundation (VEF) Fellowship (Cohort 2015)
- Student with Five Good Aspects: Ethics, Academic, Physical Fitness, Skill, Integration of Vietnam National University

Language Skills English - Professional

- TOEFL iBT: 106
- Can communicate effectively and write technical documents

Chinese - Intermediate

- Can communicate with daily topic

Interests Exercise, Meditation, Group Activity, Sharing Knowledge