Hoang T. Nguyen

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Education

- **Tokyo Institute of Technology** — Tokyo, Japan
  M.Sc. in Computer Science — *2015-2017*
  - Academic rating: 3.0 / 3.0 (Japanese system for government scholars)
  - Computer Science Department: 92 / 100
  - Mathematics and Computing Department: 100 / 100
- **Hanoi University of Science and Technology** — Hanoi, Vietnam
  B.S.Eng in Electronics Engineering and Telecommunications — *Class of 2014 - K54*
  - Magna Cum Laude.
  - Major GPA: 3.4 / 4.0
  - Cummulative GPA: 3.21 / 4.0
- **HNUE High School for Gifted Students** — Hanoi, Vietnam
  Physics Class — *Class of 2009 - K40*
  - Selected for National Physics Olympiad training.

Coursework

Electrical Engineering and Computer Science: Machine Learning, Advanced Artificial Intelligence, Distributed Algorithms, Advanced Databases, Complex Network, High Performance Scientific Computing, Advanced Inverse Problem, Programming Language Design, Computer Architecture

Mathematics: Discrete Geometry, Linear Algebra

Awards and Honors

2015 Japanese Government Scholarship for Master study at Tokyo Institute of Technology.

2014 Best undergraduate thesis defense. Raw score: 10.0 / 10.0

Experience

- **Murata Laboratory** — Tokyo, Japan
  Research Assistant — *September 2015 - Present*
  - Network embedding research. My study focuses on using deep learning and graph sampling techniques to produce a high quality vector representation of network nodes. My first model, named MAGE, proposes a motif-aware random walk process to produce positive and negative samples for skipgram-based representation learning. Our initial result promises over 10% improvement in network labeling task compare to other existing models.
  - Fuji Xerox database research: A join research project with Fuji Xerox. In this research, we use a tripartite graph model to classify high potential clients.
  - Teaching Assistant for Machine Learning and Complex Network courses taught by professor T. Murata.
- **Donuts Hanoi Co, Ltd.** — Hanoi, Vietnam
  Software Engineer Internship — *September 2014 - January 2015*
  - Develop a game named Gachinko no Tora.

- URL: `http://www.donuts.ne.jp/products/gachinko`
- Create a news letter using linked list for multi-media display.
- Add new event gameplay. Events are controlled by the game server.

ESRC Laboratory, SET Hanoi, Vietnam
Undergraduate Student *March 2012 - August 2014*

- Network on Chip and FPGA technology research.
- Designed a fully functional 2x3 Mesh network with Network Interface and Reconfiguration. My group's design is an optimized version of seniors in ESRC Lab's previous work. By applying pipeline technique, we are able to increase throughput of the Network Interface by 40% compare to our seniors' version. Further more, the network itself can handle much more data due to new structure of our Mesh-Router.
- Undergraduate summer projects: Bomberman game on FPGA and Traffic rating with OpenCV.

Technical Skills

- **Programming Languages (∼4000 lines):** Python.
- **Programming Languages (∼2000 lines):** C++ (Cocos2d-x).
- **Programming Languages ('Hello, World!'):** C, Java SE, MATLAB, Coq, Julia, Haskell, Scala.
- **Machine Learning Framworks:** Tensorflow (2 projects), Theano (1 project), Sklearn (1 project).
- **Others:** Complex network analysis (2 projects), Arduino (1 project).
- **Hardware Description Languages:** Verilog HDL (2000 lines), VHDL (1000 lines).

Other Skills

- **Documents:** LaTeX, Adobe InDesign / Photoshop / Illustrator
- **Languages:** English (TOEFL iBT: 103 - Test date: Feb 22nd, 2014), Japanese (Beginner)

Leadership and Service

- **2016-2016** Reviewer ICDM 2016.
- **2012-2014** Senior member and manager of ESRC Laboratory. Hanoi, Vietnam.
- **2009-2010** Class president and member of standing HUST student committee. Hanoi, Vietnam.

Interests and Hobbies

- **Sports:** Kendo, swimming.
- **Creative Activities:** LEGO, book reading, hiking.