

# CUONG TRAN

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Department of Computer Science ♦ Rutgers University

## OBJECTIVE

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I am looking for a full-time job in machine learning/computer vision related areas.

## RESEARCH INTEREST

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I have a broad interest in machine learning related topics area. For now, I focus on Copula and Transfer Learning. I also enjoy working with Graph and Combinatorial algorithms which are related to my teaching assistant job.

## EDUCATION

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**Department of Computer Science, Rutgers University** *2013-current*

Graduate Student in Computer Science with a specialization in Machine Learning and Computer Vision

GPA: 3.55/4.00

Course work: Linear Programming, Machine Learning, Computer Vision, Data Mining, Advanced Algorithms, Introduction to Artificial Intelligence, Numerical Analysis, Pattern Recognition.

**SoICT, Hanoi University of Science and Technology**

*August 2007 – June 2012*

B.S. in Computer Science

Overall GPA: 7.58/10.0, convertible to 4 grade: 3.37/4.0 (based on VEF conversion table)

Graduate grade: Good. Ranking: 15%

Thesis: Intrusion Detection under Covariate Shift using modified classification techniques

Thesis Grade: 9.8/10. Best thesis mark (1/13)

## WORK EXPERIENCE

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### Research Experience

1. Transfer learning with Copula

We employ the strength of copula to transfer the knowledge from the source domain to the target domain, thus improve the predictive performance of the target model.

Research advisor: Prof. Vladimir Pavlovic, Rutgers University

*Jan, 2016- current*

2. Gaussian Process for Noisy Inputs with Ordering Constraints

We studied the regression problem under uncertain input when some prior knowledge such as the ordering of the underlying true inputs is given. We developed a Bayesian learning framework to estimate the posterior of the underlying true inputs given the observed data under Gaussian Process framework. The proposed model showed promising results over the sea level dataset.

Research advisor: Prof. Vladimir Pavlovic & Prof. Robert Kopp, Rutgers University

*Jan, 2014- Dec, 2015*

### Teaching Experience

1. CS 344- Design and Analysis of Algorithms

*Fall 2015, Spring 2016 , Spring 2017*

2. CS 512- Introduction to Data Structures and Algorithms

This class is for graduate level. *Fall 2016*

## PUBLICATIONS

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- **Cuong Tran**, Vladimir Pavlovic and Ognjen Rudovic , *Unsupervised domain adaptation with copula models*. IEEE International Workshop on Machine Learning for Signal Processing 2017

- **Cuong Tran**, Vladimir Pavlovic and Robert Kopp, *Gaussian Process for Noisy Inputs with Ordering Constraints*. <https://arxiv.org/abs/1507.00052>
- **Tran Dinh Cuong** and Nguyen Giang, *Intrusion Detection under Covariate Shift using modified Support Vector Machine and modified Backpropagation*, Proceedings of the Third Symposium on Information and Communication Technology, pp 255-260, School of Information & Communication Technology, August 2012 (ISBN: 978-1-4503-1232-5)

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## TECHNICAL STRENGTHS

<b>Computer Languages</b>	Matlab (proficient), C/C++ (proficient), Java (good), R(good)
<b>Databases</b>	MySQL, Microsoft SQL
<b>Tools</b>	Netbeans, Microsoft Visual Studio, Matlab or Octave, LibSVM
<b>Operating Systems</b>	Windows, Linux (Ubuntu)

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## MATHEMATICAL BACKGROUND

Strong background in Statistics and Probability, Optimization, Numerical Analysis, Linear Algebra, Real Analysis, Graph Theory  
 Good background in Bayesian and Asymptotics Statistics, Functional Analysis, Abstract Algebra

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## LEADERSHIP

Leader of a group of about fifty Catholic students involving activities for charity  
 Leader of research groups for courses “Artificial Intelligence”, “Discrete Mathematics”, and “Network Security”

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## HONOR AND AWARDS

2007	School Annual Scholarship for outstanding students
2012	Vietnam Education Foundation Fellowship 2013-a stipend of 54k \$ received in two years.
2015-2017	Rutgers Teaching Assistantship
2017	Rutgers TA/GA Professional Development Fund Award- 925 \$

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## REFERENCES

### **Prof. Vladimir Pavlovic – Research Supervisor**

Department of Computer Science  
 Rutgers University  
 Email: [vladimir@cs.rutgers.edu](mailto:vladimir@cs.rutgers.edu)

### **Prof. Mary Jane Irwin – VEF Interviewer**

Evan Pugh Professor  
 Department of Computer Science and Engineering  
 The Pennsylvania State University  
 Email: [maryjaneirwin@vef.gov](mailto:maryjaneirwin@vef.gov)  
 Website: <http://www.cse.psu.edu/research/mdl/mji/>

### **Dr. Ognjen Rudovic – Research advisor**

Research Fellow  
 MIT Media Lab  
 Massachusetts Institute Of Technology  
 Email: [orudovic@mit.edu](mailto:orudovic@mit.edu)

### **Prof. Edward Scheinerman – VEF interviewer**

Department of Applied Mathematics & Statistics  
 Johns Hopkins University  
 Email: [ers@jhu.edu](mailto:ers@jhu.edu)  
 Website: <http://www.ams.jhu.edu/~ers/>