

Timothée Cour

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Education

University of Pennsylvania, Philadelphia

PhD candidate, Computer and Information Science, 2003-present

M.S. Computer and Information Science, May 2005

Ecole Polytechnique, France (accepts the **top 400** science students each year)

M.S. Applied Mathematics, 2003

B.S. Computer Science and Mathematics, 2002

Fellowship from the Ecole Polytechnique Foundation, 2003

Carnot Foundation Fellowship, 2003 (**3 awardees** from Polytechnique each year)

Research and Work Experience

Microsoft Research, Microsoft Corporation, Redmond, WA

Research Internship, June 2005 – September 2005 (with senior researcher Paul Viola and Michael Shilman, Document Processing group). Recognition of printed/handwritten mathematical expressions. Designed an attributed parsing algorithm for non context free structures such as matrices and tables.

GRASP Lab, University of Pennsylvania, Philadelphia

Graduate Research Assistant, September 2003 – present (with Prof. Ben Taskar and Prof. Jianbo Shi). Independant research: learning spectral clustering, image segmentation, graph matching, approximate inference, video parsing with text & images.

Fugro Geosciences, Tokyo, Japan

Intern, Summer 2002. Analysis of shock wave propagations during pile loading tests.

Ecole Polytechnique, Palaiseau, France

Graduate Research, 2002. Image Compression using a learning algorithm for wavelet based super-resolution.

Undergraduate Project, 2002. Designed an **autonomous chess-playing robot** with a digital camera, arm and chess engine. Robust recognition of chess position under variable lighting. Used an alpha beta pruning algorithm with various heuristics.

Undergraduate Research, 2001. A biologically-inspired computer vision system for handwritten character recognition. Recognition rate of 90% on the MNIST database.

Publications

Timothée Cour, Ben Taskar. **Movie Parsing via Image to Text Alignment**. *NIPS 2007 Workshop on the Grammar of Vision: Probabilistic Grammar-Based Models for Visual Scene Understanding and Object Categorization*. In preparation.

Timothée Cour, Jianbo Shi. **Recognizing objects by piecing together the Segmentation Puzzle**. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2007*.

Timothée Cour, Jianbo Shi. **Solving Markov Random Fields with Spectral Relaxation**. *Eleventh International Conference on Artificial Intelligence and Statistics (AISTATS), 2007*.

Timothée Cour, Praveen Srinivasan, Jianbo Shi. **Balanced Graph Matching**. *Advances in Neural Information Processing Systems (NIPS), 2006*

Timothée Cour, Florence Bénézit, Jianbo Shi. **Spectral Segmentation with Multiscale Graph Decomposition**. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2005*

Timothée Cour, Nicolas Gogin, Jianbo Shi. **Learning spectral graph segmentation**. *Tenth International Workshop on Artificial Intelligence and Statistics (AISTATS), 2005*.

Timothée Cour, Jianbo Shi. **A learnable spectral memory graph for recognition and segmentation**. *Technical Report MS-CIS-04-12, University of Pennsylvania CIS Technical Reports, Philadelphia, PA, June 2004*.

Teaching & Professional Activities

Program committee member, IEEE Int. Conference on Computer Vision, ICCV 2007

Reviewer, NESCAI 2007

Fall 2006, Teaching Assistant: Automata, Computability, and Complexity, CSE 262

Spring 2005, Teaching Assistant: Computer Vision, CSE 399

Fall 2004, Teaching Assistant: Mathematical Foundations of Computer Science, CSE 260

2004-2006, Supervision of undergraduate and graduate interns

2000-2003, Tutoring in Maths and Physics for undergraduate students

Computer and Language skills

Programming in Matlab, Java, C/C++, C#, Python, Ocaml (Windows/Unix/Linux)

French (native), English (bilingual), Japanese (advanced beginner)

Extracurricular Activities

International chess ranking, **shared 1st place** in the 6th International PARIS-APSAP Competition, ranked 6th at the French National Junior Chess Championship.

Rock-climbing, Tennis, Ballroom dancing.