# Khoi H Nguyen


## Contact Information

Khoi Nguyen
1435 E Mesa Ave.
Las Cruces,
NM 88001 USA

*Mobile:* 765-774-2091
*Email:* knguyen@cs.nmsu.edu
*Website:*
www.cs.nmsu.edu/∼knguyen/


## Expertise

Artificial Intelligence, Planning and Scheduling.

## Education

**New Mexico State University**, Las Cruces, NM USA

Ph.D. student, Computer Science, Graduated 05/2013

- Thesis: *Methodologies for Scaling Up Conformant Planning: Exploitation of Interaction between Possible Worlds*
- Area of Study: Artificial intelligence
- GPA: 4.0

**University of Science**, Ho Chi Minh City, VietNam

Bachelor, Information Technology, First Class of Honours, Graduated 06/2006

- Thesis: Iris Recognition
- Area of Study: Bioinformatics

**Le Hong Phong HighSchool**, Ho Chi Minh City, VietNam

## Skills

- Problem solving, critical thinking, team working
- Able to quickly grasp new concepts
- Language: C, C++, Python, Java, C#, MATLAB, Prolog, Visual Basic, ASP.NET, Lisp, Answer Set Programming, HTML, Ruby
- Tool: Lex, Yacc, Standard Template Library and Boost Library for C++, svn, Linux Shell Scripting, GDB, Apache Tomcat, git
- Database: SQL, MySQL, Oracle
- OS: Linux, iOS and Windows
- IDE: Eclipse, Microsoft Visual C++
- AI Planning
- Data mining, machine learning, R
- Enterprise Resource Planning, SAP
- Multi-agent programming, JASON

## Experience

Softwares developed **January 2006 to May 2013**

- Develop systems that can decide the appropriate actions for an agent to perform under uncertainty. Each system has millions of source code lines in Python and C++. They are able to find a solution path, or plan, quickly in problems with gazillion of states. Our first system, CpA, won the last International Planning Competition in 2008. We use SVN/git to control versions of different software. We use Python for parsing and write different search engines in C++ using STL to find the solution.

- Develop phylogenetic information queries from CDAO bioinformatics system. We write a Java program in Eclipse to retrieve the data from the huge online database CDAO of the phylogenetic tree, 'tree of life'. We then develop different queries in Answer Set Programming to extract the knowledge from the phylogenetic tree.
- Develop two websites for selling video games and online music in ASP.NET in Vietnam. We develop search service for user to search for similar items from the databases in SQL and Access.
- Internship at TMA Solutions, VietNam. VoIP website development. My responsibility is to set up the load balancing for Apache Tomcat server and develop different test cases in JUnit.
- Develop a library system using multi-agents programming platform JASON in Java. The system sends messages between different library servers concurrently to find the available books at the nearest location.

*Selective Teaching Assistant* **January 2007 to May 2013**

- Theory of Computation.
- Programming Languages Structure II.
- Database Management Systems I.
- Artificial Intelligence I.
- Introduction to Robotics.
- Data Structures and Algorithms.
- C Programming.

## Awards

**Winner of Non Observable Non-Deterministic track.** International Planning Competition 2008.
**Best Student Paper.** The 22nd International Conference on Automated Planning and Scheduling 2012.
Graduate Assistantship Award Fall 2011. New Mexico State University.
College of Art and Science Travel Award 2012. New Mexico State University.
Best Research Assistant Award Spring 2012. Department of Computer Science. New Mexico State University.
Honors Graduate Spring 2013. New Mexico State University.
Best Teaching Assistant Award Spring 2013. Department of Computer Science. New Mexico State University.

## Selective Publications

Khoi Nguyen, Vien Tran, E. Pontelli, and T. C. Son. On Improving Conformant Planners by Exploiting Domain-Structures. In *AAAI* 2011.

Khoi Nguyen, Vien Tran, Son Tran, Enrico Pontelli. On Computing Conformant Plans Using Classical Planners: A Generate-And-Complete Approach. In *International Conference on Automated Planning and Scheduling*, 2012.

Vien Tran, Khoi Nguyen, T. C. Son, E. Pontelli. CPA(H): A Conformant Planner Based on Approximation. ACM Transactions on Intelligent Systems and Technology, 2013.

Brandon Chisham, Hieu Nguyen, Khoi Nguyen, Enrico Pontelli, and Tran Son. Preliminary Design of a Phylogenetic Query Portal based on Declarative Programming Languages Technology. In *International conference on Bioinformatics and Computational Biology*, 2012.

## Activities

- Association for the Advancement of Artificial Intelligence member 2011-2012
- NMSU Computer Science Graduate Student Organization
- NMSU Computer Science Graduate Cross-Research Meeting
- NMSU Vietnamese Student Association
- NMSU Vietnamese Soccer teams 2009-2012

## Reference

*Dr. Son Tran*

- Designation: Graduate Advisor
- Organization Name: NMSU Computer Science Department
- Phone Number: 575-646-1930
- Email: tson@cs.nmsu.edu

*Dr. Enrico Pontelli*

- Designation: Department Head
- Organization Name: NMSU Computer Science Department
- Phone Number: 575-646-6239
- Email: epontell@cs.nmsu.edu