# MOHIT GOENKA

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#### **EDUCATION**

• Master of Science with Thesis on Game Theory and Human Behavior, Computer Science

May 2011

University of Southern California, Viterbi School of Engineering

Los Angeles, CA

\*Algorithms, Artificial Intelligence, Software Multiagent Systems, Machine Learning, Data Analytics, Web Technologies, Information Integration, Information Retrieval and Web Search Engines and Feasibility Analysis GPA 3.85/4.00

Bachelor of Engineering, Computer Science and Engineering

June 2009

Lakshmi Narain College of Technology

Bhopal, India

Data Structures, Computer Graphics and Multimedia, Database Management System, Software Engineering and Neural Networks

❖ First Division with Honors

83.56% (Major GPA 4.00/4.00)

## TECHNICAL PROFICIENCY

- Web Development: HTML, CSS, XML, RDF, OWL, JSON, XSLT, JavaScript, YUI, Backbone, Underscore, PHP and JSP
- Languages: C, C++, Visual BASIC, Java, Python, Perl and MATLAB
- Tools: SVN, Git, Jenkins, Agile development, MySQL, Microsoft Access, SQL and GeNIe
- Operating Systems: Microsoft Windows 98/2000/XP/Vista/7/8, Unix, Linux, Mac and Sun Solaris
- Hardware Proficiency: Computer Assembly, Laptop Assembly, Laptop troubleshooting and Hard Disk troubleshooting

## WORK EXPERIENCE

• Software Applications Development Engineer, Yahoo Inc. Intermediate Software Development Engineer, Yahoo Inc.

April 2013 - Present

July 2011 - March 2013

Working on the Yahoo! Mail feature team and integrating mail management applications in the system

• Senior Software Development Engineer, Kneon Inc.

January 2011 - July 2011

Assisting in the development of the e-commerce technology and maintaining the backend of company's database

• Research Assistant and Webmaster, Teamcore Research Group (Artificial Intelligence) Assiting in research projects and managing the website of the group under Professor Milind Tambe, USC May 2010 - May 2011

• Administrator and Webmaster, Game Theory and Human Behavior Group

June 2010 - May 2011

Administrating seminars and workshops for mulitdisciplinary group involving 9 USC schools; Professor Milind Tambe, USC • Tutor, Scholars Building Scholors Program at University of Southern California

September 2010 - December 2010

Teaching children aged 5 to 16, under the Chaka Khan Foundation program

• Teaching Assistant, Artificial Intelligence and Robotics Designing, grading and assisting students in the course by Professor Sven Koenig and Professor Hadi Moradi, USC

January 2010 - August 2010

• Founder, Student Reporter and Webmaster, Acadote (Academic Notes)

Established a Los Angeles based startup and served as student reporter and webmaster

December 2007 - June 2009

May 2010 - August 2010

• Intern, SUN Microsystems

Organized workshops and seminars on SUN technologies as Campus Ambassador Committee member at LNCT

October 2005 - August 2007

• Lab Incharge, Computer Science Lab Managed computer network management and aided students in summer projects at LNCT

• Intern. HCL Infosystems Limited

June 2007 - July 2007

Carried out study and implementation of ISP, Internet Service Provider at Jabalpur

## **PROJECTS**

• Behavioral Game Theory (Java, PHP and MATLAB)

June 2010 - April 2011

Thesis: Computational Model of Human Behavior in Security Games with Varying Number of Targets

Designed games to simulate the real-world security and analyzed the obtained data for determining the best randomized security pattern using Java, PHP and MATLAB

• IRIS, Intelligent Randomization In Scheduling (Java)

October 2010 - March 2011

Worked on an enhanced system to randomize selection of a set of high risk flights to increase terrorist uncertainty based on Java, now in use in limited international sectors by the Federal Air Marshals (FAMs)

• GUARDS, Game-theoretic Unpredictable And Randomly Deployed Security (Java) June 2010 - November 2010 Worked on an enhanced system to randomize airport security activities based on Java, now in operation at Los Angeles (LAX) and Pittsburgh (PIT) International Airports by the Transportation Security Administration (TSA)

• Risk Assessment in Security Games based on Communicative Messages (MATLAB)

August 2010 - December 2010

Designed a risk assessment system for based on facial expressions in MATLAB

• Evacuation Simulation (C++)

May 2010 - August 2010

Implementing the simulation of evacuation using the concept of multiagent systems and Massive

• JSON interface to control HDFS (Java and Python)

May 2010 - August 2010

Developed a JSON based interface to process data directly to/from the HDFS system in Java and Python

• **Directed Research** on K-Swaps-Cooperative Negotiation of Multiagents (C++)Implemented an algorithm for Task Allocation problem in Multiagents in C++

January 2010 - June 2010

• **Gesture Recognition** with Neural Networks (C++)

October 2009 - June 2010

Implemented the concept of gesture recognition with neural networks using C++

• DIG (DCEE with Intelligent Graph) Algorithm (C++ and Python)

January 2010 - April 2010

Designed an algorithm to intelligently construct graphs for DCEE in Multiagent systems using C++ and Python

• Integration of Web Resources and Databases (Java)

January 2010 - April 2010

Designed a web interface to automatically integrate web resources and databases using a hybrid algorithm based on Java

• Mashup of Google Maps, Flickr/Veoh/Youtube and Facebook (AJAX)

November 2009 - April 2010

Designed a web interface to display Flickr/Veoh/Youtube data and post it on Facebook using AJAX

• Android based Mobile Currency Reader for Visually Impaired (Java, C++ and Python) ACM SS12>Code for a Cause Designed using Server-Client architecture based on Java, C++ and Python (http://code.google.com/p/pp-usc-ss12mobilecurrencyreader)

• Any-Angle Path Planning (C++)

September 2009

Implemented the concept of any-angle for navigation in Computer Games using A\* and Theta\* algorithms in C++

• Gait Analysis for Human Recognition (C++ and MATLAB)

June 2008 - June 2009

Designed an algorithm for gait analysis technique, using C++ and MATLAB [Best Student Project Award]

• Digital Image Watermarking (MATLAB)

January 2008 - June 2008

Implemented for both embedding and detection using MATLAB

• Operating System-Multiple Formats with Enhanced Security

January 2008 - June 2008

Developed a variation of Sun Solaris Operating System to support multiple file formats

Autonomous Sumo Robot (Keil C)

January 2007

Designed a live robot for Sumo Wrestling in Robotics Workshop held at Indian Institute of Technology Mumbai

#### **PRESENTATIONS**

- Detection of Untouched UFOs: at LNCT Bhopal (First Prize October 2008), IIT Kharagpur (January 2008), Bhartiya Vigyan Sammelan (November 2007), National Conference LNCT (April 2007), IIT Roorkee (March 2007) and IIT Delhi (February 2007)
- Programming Clean Development Mechanisms: LNCT Bhopal (First Prize October 2008), Bhartiya Vigyan Sammelan (November 2007), National Symposium LNCT (October 2007) and Paryavaran Parisar Bhopal (October 2007)
- Virtual Reality and Mixed Reality: State Conference (May 2009), National Conference LNCT (April 2007) and Jabalpur Engineering College (Third Prize - October 2006)
- Non-Conventional Sources of Energy: Bhartiva Vigyan Sammelan (November 2007) and National Conference LNCT (October

## ACHIEVEMENTS AND ACTIVITIES

Scholastic Achievements	
❖ University of Southern California, Office of International Services Award for Academic Excellence	2009-11
❖ISC Gold Medal for Excellence in Computer Science	2003-04
❖ Winner: State level Mathematics Olympiad	2003-04
• Leadership	
❖ Spokerperson: Association of Indian Students at USC	2010-11
❖ Vice President (Public Relations): Association of Indian Students at USC	2009-10
❖C-Certificate: National Service Scheme, India	2006-09
❖ President: Red Ribbon Club-Madhya Pradesh State Aids Control Society, India	2008-09
❖Board Member: Madhya Pradesh Super Eleven Cricket Association, India	2008-09

### REFERENCES

• Scott Frankel, Co-founder and President, Kneon Inc.

Phone: (917) 991-8445; Email: scott@kneon.com

- Professor Milind Tambe, Professor, Computer Science and Industrial Engineering Department, University of Southern California Phone: (213) 740-6447; Email: tambe@usc.edu; Website: http://teamcore.usc.edu/tambe
- Professor Sven Koenig, Associate Professor, Computer Science Department, University of Southern California Phone: (213) 740-6491; Email: skoenig@usc.edu; Website: http://www.idm-lab.org