HAIZI (HANS) YU

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EDUCATION

Stanford University, Stanford, CA, USA 09/2010 - present
MS in Computer Science, expected 06/2012, **GPA:** 4.2/4.0
Coursework: Machine Learning; Math Methods for Robotics, Computer Vision and Graphics; Linear Dynamical Systems.

University of Wisconsin-Madison, Madison, WI, USA 08/2009 – 05/2010
Graduate Student in Electrical and Computer Engineering, **GPA:** 4.0/4.0
Coursework: Algorithms; Signal Synthesis and Recovery Technology; Machine Learning; Optimal Systems; Theory of Information Processing and Transmission; Real Analysis.

Tsinghua Univeristy, Beijing, China 09/2005 – 07/2009
BS in Dept. of Automation, **GPA:** 91.4/100.0, **Awards:** First Class Scholarship
Coursework: Programming; Linux OS; Database; Computer Theory; Computer Network; DC/AC design and analysis; AI; Pattern Recognition; Signals and Systems; the Theory of Automatic Control; Mechanical design.

TECHNICAL SKILLS

- Programming: C/C++, Java, MATLAB, VHDL
- Systems: Unix/Linux, MySQL, FPGA
- Languages: Chinese Mandarin (native), English (fluent)

EXPERIENCE

Course Project: Prof. Andrew Ng's group, CSD, Stanford University 09/2010 – 12/2010
- Programmed (C++ with OpenCV and STEP Lib.) to enable a janitor robot to turn on/off light switches on the wall.
- Course Project of Machine Learning, which also heavily incorporated in Computer Vision and Pattern Recognition.

Internship: HStar Tech. Inc., Boston, MA, USA 08/2010 – 09/2010
- Researched on navigation (routine selection) and manipulated (task performance) in Medical Robot.
- Programmed motor control, which allowed the robot to complete motion task.

Research: Prof. Barmish's group, ECE, University of Wisconsin-Madison 09/2009 – 01/2010
- Researched on applying control theory to intelligent trading in the stock market.
- Studied stock market model and mechanism of Saturation Reset Controller (SRC) created for stock trading.
- Programmed the SRC and simulated the process of intelligent trading.

Internship: Handy Robotics Tech. Inc., Changzhou, China 07/2009 – 08/2009
- Worked collaboratively with a team on testing Omni wheel mobile robotic system and telepresence robots.

Research: Prof. Hongxing Zou's group, Inst. of Info, Dept. of Automation, Tsinghua University 09/2007 – 06/2009
- Researched on generalizing the traditional matrix theory to multi-dimensional arrays (named "cuboid").
- Creatively defined corresponding inverse and transpose arrays and decompositions (such as QR, SVD, etc).
- Utilized the generalized theory in digital video/image processing (e.g., video denoisying).
- Awards: achieved excellent graduation thesis in Tsinghua University.

Research: Robot Lab, Inst. of Control Theory & App., Dept. of Automation, Tsinghua University 10/2007 – 08/2008
- Researched on mechanical and electronic design of humanoid soccer robots.
- Responsible for (a) Building of new generation robots; (b) Designing software for robots' steps using C# as a simulation platform; (c) Designing actions and gaits of the robots; (d) Improving the flexibility and shooting quality of robots during football match demonstration with closed-loop control and system modeling theories.
- Awards: achieved silver medal in RoboCup2008 World Championship, Humanoid League.

Art: Ten years' experience in learning traditional Chinese painting, watercolor, sketch and cartoon drawing.

OTHER ACTIVITIES

Volunteer: Beijing 2008, Olympic Games 08/2008
Volunteer: "Good Luck, Beijing" synchronized swimming, Olympic pre-round 06/2008
Volunteer: "Good Luck, Beijing" Diving World Cup 02/2008

HOBBIES

Painting, calligraphy, piano, guitar, swimming and baseball.