

| | | |
|--------------------------|---|--|
| Objective | A full-time position in IT companies or financial corporations. | |
| Education | Carnegie Mellon University Aug 2008 & May 2006 Ph.D. and MS in Computer Science Pittsburgh, PA The PhD thesis work addressed how an autonomous agent improves its tracking performance over the moving targets using self knowledge and teammate communications. | |
| | Beijing Institute of Technology Mar 2003 & May 2000 BS and MS in Automatic Control Engineering Beijing, China GPA: 3.9/4.0 major, 3.8/4.0 overall | |
| Work Experience | Carnegie Mellon University Aug 2003 - Aug 2008 Research Assistant Pittsburgh, PA Introduced and implemented a novel team-driven motion tracking approach to incorporate models of robot-object interaction and multi-robot coordination plans. | |
| | Sony Ericsson Mar 2003 - Aug 2003 Software Design Engineer Beijing, China Designed a customized lunar calendar for Sony Ericsson 610 series under Symbian OS. | |
| | CSoft International Dec 2002 - Feb 2003 Software Design Engineer Beijing, China Implemented a heap memory pool which provides support for dynamic memory management. Designed and implemented a user-friendly program to preview and change the theme settings of the cell phone. | |
| | Intelligent Object Tracking Jun 2005 - Jun 2008 Designed a multi-model tracker and integrated multiple sources of information to improve the performance of object tracking. Included all the available non-standard information and yielded a much better object tracking algorithm with significantly improved performance. | |
| Research Projects | Segway Soccer Jun 2005 - Jun 2008 Examined human-robot interaction with an adversarial, multi-robot setting where humans and robots are team members with similar capabilities and no clear role hierarchy. Designed robot strategy and skills to cooperate with human. | |
| | Coaching Aug 2003 - May 2005 Developed an autonomous coach agent that use observations to learn opponent models in order to provide advice to other agents on how to act against the opponents. | |
| | RoboCup Soccer Simulation Jun 2001 - Jun 2003 Jointly founded and designed the RoboCup Everest team in a worldwide simulated robot soccer competition, where a team of autonomous agents cooperate and compete against another team in real time. Managed a four person team. | |
| | Handwritten Character Recognition Sep 2000 - May 2001 Introduced and implemented a handwritten character recognition method based on Wiener filter, K-L transformation and BP neural network. The correct rate of the recognition is over 98% over a large amount of samples from a public handwritten character database. | |

| | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----------------------------------|------------------|----------------------------------|-----------------------|-------------------|------------------------------|----------------|----------------------|----------------------------|---------------------|-------------------------|--------------------------|-----------------|-----------------------|-------------------------|----------------|----------------------------|------------------------|
| Awards and Honors | <p>World 4th Place Winner of RoboCup, Simulation League 2003 Won 4th place among 97 Teams from 18 countries. Lisbon, Portugal In RoboCup Simulation League teams of 11 autonomous software agents per side play each other using the RoboCup soccer server simulator. Each simulated robot player may have its own play strategy and characteristic and every simulated team actually consists of a collection of programmes.</p> <p>World 2nd Place Winner of RoboCup, Simulation League 2002 Won Runner-up out of 45 Teams from 14 Countries all over the world. Fukuoka, Japan Made 90+ goals and lost only 13.</p> <p>Scholarship of China Academy of Sciences 2002 Awarded to 5 out of 20,000+ students annually in university. Beijing, China</p> | | | | | | | | | | | | | | | | | | |
| Selected Publications | <p>Effective Multi-Model Motion Tracking Using Action Models Aug 2008 Yang Gu and Manuela Veloso. In International Journal of Robotics Research.</p> <p>Learning Tactic-Based Motion Models with Fast Particle Smoothing May 2008 Yang Gu and Manuela Veloso. In Proceedings of the 2008 IEEE International Conference on Robotics and Automation (ICRA'08).</p> <p>Joint Parameter-State Estimation in Multiple Switching Dynamic Models Jun 2007 Yang Gu and Manuela Veloso. In Proceedings of the 2007 IEEE International Symposium on Computational Intelligence in Robotics and Automation (CIRA'07).</p> <p>Multi-Model Motion Tracking under Multi-Agent Actuators May 2006 Yang Gu and Manuela Veloso. In Proceedings of the Fifth International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS'06).</p> <p>Tactic-Based Motion Modelling and Multi-Sensor Tracking Jun 2005 Yang Gu and Manuela Veloso. In Proceedings of Twentieth National Conference on Artificial Intelligence (AAAI'05).</p> | | | | | | | | | | | | | | | | | | |
| Related Skills | <p>Programming Languages: C++, Perl, Matlab, Pascal, Matlab, JavaScript Version Control: CVS, Darcs, BitKeeper Text Formatting: L^AT_EX, HTML, XML Languages: English, Chinese</p> | | | | | | | | | | | | | | | | | | |
| Activities | <p>Teaching Assistant Computational Neuroscience undergraduate course. Jan 2007 - May 2007 Graduate Artificial Intelligence. Sep 2006 - Dec 2006</p> <p>Chinese Student and Scholar Association, CMU Vice President. Sep 2003 - Sep 2004</p> | | | | | | | | | | | | | | | | | | |
| Professional Affiliations | <p>Student Member, American Association for Artificial Intelligence Member, Sigma Xi Scientific Research Society Member, China Association of Automation</p> | | | | | | | | | | | | | | | | | | |
| Course Work | <table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Graduate Algorithms</td> <td style="width: 33%;">Machine Learning</td> <td style="width: 33%;">Planning, Execution and Learning</td> </tr> <tr> <td>Computer Architecture</td> <td>Computer Networks</td> <td>Introduction to Type Systems</td> </tr> <tr> <td>Machine Vision</td> <td>Statistical Learning</td> <td>Artificial Neural Networks</td> </tr> <tr> <td>Pattern Recognition</td> <td>Artificial Intelligence</td> <td>Digital Image Processing</td> </tr> <tr> <td>Matrix Analysis</td> <td>Multimedia Technology</td> <td>Decision Support System</td> </tr> <tr> <td>Linear Algebra</td> <td>Probability and Statistics</td> <td>Theory of Optimization</td> </tr> </table> | Graduate Algorithms | Machine Learning | Planning, Execution and Learning | Computer Architecture | Computer Networks | Introduction to Type Systems | Machine Vision | Statistical Learning | Artificial Neural Networks | Pattern Recognition | Artificial Intelligence | Digital Image Processing | Matrix Analysis | Multimedia Technology | Decision Support System | Linear Algebra | Probability and Statistics | Theory of Optimization |
| Graduate Algorithms | Machine Learning | Planning, Execution and Learning | | | | | | | | | | | | | | | | | |
| Computer Architecture | Computer Networks | Introduction to Type Systems | | | | | | | | | | | | | | | | | |
| Machine Vision | Statistical Learning | Artificial Neural Networks | | | | | | | | | | | | | | | | | |
| Pattern Recognition | Artificial Intelligence | Digital Image Processing | | | | | | | | | | | | | | | | | |
| Matrix Analysis | Multimedia Technology | Decision Support System | | | | | | | | | | | | | | | | | |
| Linear Algebra | Probability and Statistics | Theory of Optimization | | | | | | | | | | | | | | | | | |
| Hobbies | <p>Travel (40+ National Parks and National Monuments in US), Photography (Landscape and Portrait), Tennis, Dance Dance Revolution.</p> | | | | | | | | | | | | | | | | | | |