

# Soshi Iba

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## EDUCATION

- Ph.D.**, The Robotics Institute, Carnegie Mellon University August 04  
• Ph.D. Dissertation: *Interactive Multi-Modal Robot Programming* (advisor: Prof. Pradeep Khosla)
- M.S.**, Electrical & Computer Engineering, Carnegie Mellon University May 96  
• Masters Project: *Vision based robot localization using floor map database* (advisor: Dr. Alonzo Kelly)
- B.S.**, academic and research honors, Electrical & Computer Engineering, Carnegie Mellon University May 95  
• GPA: 3.79 / 4.00  
• Honors Research Project: *Mobile-robot elevator riding* (advisor: Prof. Reid Simmons)

## RESEARCH INTERESTS AND EXPERTISE

- Mechatronics
- Intelligent Robots
- Human-Machine Interaction
- Gesture and Speech Recognition
- Statistical Modeling
- Robot Programming and Architecture

## SKILLS

- Computer languages: C/C++, Java, Visual Basic, Perl, Matlab, LISP, Scheme, Assembly (Motorola), HTML/XML
- Computing platforms: UNIX (RT and non-RT), Win32
- Systems: CORBA, COM, MFC
- Software tools: VisualStudio, Matlab, Maple, GNU tools, Pro/E

## EXPERIENCE

- Research Assistant**, The Robotics Institute, Carnegie Mellon University May 95–present  
• Created multi-modal on-line robot programming system for mobile vacuum cleaning robot, and arc-welding robot.  
• Developed methodology to model programs and recognize intended plans to assist users.  
• Retrofitted 1/16 model tanks to sensor-based autonomous robots. The task involved design of hardware, motor controller, PC104 interface, and sensor array interface.  
• Developed stereo camera calibration and lens rectification system for unmanned ground vehicle.
- Visiting Research Scholar**, Institute of Industrial Science, University of Tokyo May 99–Jan 00  
• Developed methodology to train, adapt, and recognize gestures based on statistical modeling techniques.
- Engineering Intern**, Nippon Motorola Ltd. May–July 93  
• Analyzed flash E<sup>2</sup>PROM failure modes and developed endurance test software for 68HC series microcontrollers.

## TEACHING

- Teaching Assistant**, Carnegie Mellon University, 15-384 *Robotic Manipulation* (3<sup>rd</sup> year course) Jan–May 99

## HONORS AND AWARDS

- IFRR Student Fellowship Award*, IFRR 9<sup>th</sup> International Symposium on Experimental Robotics June 04  
*Anton Philips Best Student Paper Award Finalist*, IEEE International Conf. on Robotics and Automation May 02  
*Research Fellowship*, The Robotics Institute May 96–present  
*B.S., with Academic and Research Honors*, Carnegie Mellon University May 95  
*Carnegie Institute of Technology Dean's List*, Carnegie Mellon University May 93, May 95

## PUBLICATIONS AND PRESENTATIONS

- Refereed publications in print: 12
- Presentations at conferences and research institutions: 6