

P. ANDREW L. SILVERTHORNE

242 Galaxy Boulevard,
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- Objective** Manage R&D and design of advanced, intelligent, personal service robotic systems.
- Experience** IDEALAB!/EVOLUTION ROBOTICS, INC. Pasadena, CA & Manhattan, NY
2001
Various consulting responsibilities included prototyping&integrating new robotic systems. Projects include mobile robot sensing and computing design as well as its electrical topology. Architecting sensory integration software & engineering effort in novel personal robotic system open to new class of robo-developing community.
- HELPMATE ROBOTICS, INCORPORATED/PYXIS CORP. Danbury, CT
1998-2000
Development Engineer responsibilities included researching/integrating robotic system components: flagship HelpMate hospital courier, LabMate mobile base, Zebra&BiSight vision and SonaRanger&LightRanger ranging systems & 2-arm, stereo-vision mobile human-assisting robot, NASA's Anthropomorphic Robotic Testbed.
- TSENG LABORATORIES/A.T.I. RESEARCH, INCORPORATED
1996-1997 Newtown, PA
Software Engineering responsibilities included modeling and optimizing performance of a 3D graphics accelerator chip with an on-board RISC processor. Development of drivers and simulations in C, in Windows 95 and Sun Unix environment.
- XYNTEK, INCORPORATED Yardley, PA
1995-1996
Engineering and consulting responsibilities included development of prototype automated dissolution system for Merck Research Laboratories and Datacube vision system for bottle inspection. Programming of PLCs and in C.
- NEW YORK STATE CENTER FOR AUTOMATION TECHNOLOGIES
1992-1994 Rensselaer Polytechnic Institute, Troy, NY
National Science Foundation-funded research and development with robotic hand & arm, intelligent sensor systems, architecture of variably-autonomous control (C++).
- NASA CTR FOR INTEL. ROBOTIC SYSTEMS FOR SPACE EXPLORATION
1989-1992 Rensselaer Polytechnic Institute, Troy, NY
NASA-funded research responsibilities included development of a mobile robot test-bed system for autonomous navigation research. Development in C on VME/Unix.
- SPAR AEROSPACE LIMITED Toronto, Ontario. CANADA
1990
Engineering analysis of the NASA Space Station Remote Manipulator System, for Space Station Freedom. Code development in DEC's VAX/VMS Fortran.

Education RENSSELAER POLYTECHNIC INSTITUTE Troy, NY
Doctoral Candidate in Computer & Systems Engineering, 1992-2002. Doctoral thesis: "Architecting a Value Measure System for Robotic Sensing & Control." Advisors: Dr. H. E. Stephanou (at RPI/CAT) and J. F. Engelberger (of HRI).

RENSSELAER POLYTECHNIC INSTITUTE Troy, NY
M.S. in Electrical Engineering, August 1992. Masters thesis: "Navigation of a Mobile Robot Using a Heuristically Generated World Map from Ultrasonic Sensor Data." Advisor: Dr. L. K. Lauderbaugh.

RENSSELAER POLYTECHNIC INSTITUTE Troy, NY
B.S. in Mechanical Engineering, December 1990. Graduated on Dean's list.

Publications "A Value Measure for Data to Control Sensing and Motion Processes," In *IEEE International Conference on Robotics and Automation*. San Francisco. April 2000.

"Variably-Autonomous Manipulation," In *IEEE International Conference on Robotics and Automation*. San Diego, United States. May 1994.

"Navigation using the CIRSSE Mobile Robot Using World Maps from Ultrasonic Sensor Data," *CIRSSE Technical Document*, June, 1992.

Computer Experience

OPERATING SYSTEMS
Wind River Systems VxWorks, (Integ'd Sys.) pSOS, Lynx (Real-time embedded).
Unix (SunSoft Solaris, development system) & Network/System Administration.
Digital's (Compaq) VAX/VMS, MTS (Michigan Terminal Sys.) on IBM 3090E.
Macintosh (home), DOS, Microsoft Windows (9X, NT and 2000) Environments.

LANGUAGES
Java (1+), C++ (1+), lisp (1+), C (10+ years).
FORTRAN (2), BASIC (2 years).
PROLOG, pascal, Forth, Assembler, Programmable Logic Controller Ladder Logic.

Activities and Interests

PROFESSIONAL AND HONOUR SOCIETY AFFILIATIONS
Institute of Electrical & Electronic Engineers (& Computer Society), since 1990
American Society of Mechanical Engineers, since 1989
Tau Beta Pi, Honorary Engineering Fraternity, 1990
Eta Kappa Nu, Honorary Electrical Engineering Fraternity, 1993
Pi Tau Sigma, Honorary Mechanical Engineering Fraternity, 1989

HOBBIES AND INTERESTS
Private Pilot License (US FAA), SCUBA diving (PADI/Canada), sailing (CTlic)
Winter, water, ski, (motor)cycling activites; vehicle & electronics repair/design.

References Available Upon Request.