

Martin R Stytz, Ph.D.

Lt. Col. USAF (ret)

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EDUCATION

Ph.D. - Computer Science and Engineering; University of Michigan; December 1989

MS - Computer, Information and Control Engineering; University of Michigan; August 1983

MA - Political Science – University of Central Missouri (formerly Central Missouri State University); September 1980

BA – Political Science; US Air Force Academy; June 1975

ACCOMPLISHMENTS

Managed \$62M+ in research programs for the US government

Conducted \$12,894,000 in research for the US government

Authored over 200 technical paper publications, including 20 technical journal papers. Holder of two US patents.

I am a creative and visionary leader and have repeatedly demonstrated my integrity, focus, enthusiasm, motivation, flexibility, quick-thinking, and confidence in a variety of military and US government research and development positions. I have program and project management expertise coupled with a broad and deep technical background and understanding of government financial and contracting operations. Highly experienced in interacting with a wide variety of clients at all levels nationally and internationally. I have given presentations to international audiences and have no difficulty working with and building a team with people from many cultures. I have experience and expertise in establishing and guiding new research directions, leading in developing new technologies and capabilities, and interacting with a wide variety of clients at all levels nationally and internationally. I have an international reputation in many areas of computational science and military technologies and a distinguished record of group and scientific community leadership. I have an excellent scientific publication record. I have a proven track record of technical team building for software research and development. I am a successful, motivated risk-taker who understands technology and programmatic realities.

Research interests span the fields of computer science, human behavior and intelligence, and medicine. Current activities include conducting research, development, and analysis related to computer software research and development engineering; with an emphasis on information assurance, intelligent systems, computer security, software protection, security and privacy, software engineering, cyberwarfare, automated software security testing, human behavior modeling, advanced computing, distributed virtual environments, international network centric operations, modeling and simulation, distributed simulation, software security policy, and support for combatant commanders. Additional interests include information technology, large-scale systems, distributed software development, cyber warfare strategy & modeling, graphical user interfaces, user-centered decision support, artificial intelligence, intelligent agents, and information visualization.

PROFESSIONAL EXPERIENCE

Current

Institute for Defense Analyses, Research Staff Member

Conduct research, development, and analysis related to information assurance, intelligent systems, computer security, security and privacy, software engineering, automated software security testing, human behavior modeling, quantum computing, distributed virtual environments, international network centric operations, modeling and

simulation, software security policy, and other topics. Member of NATO RTO SAS panel 050 and co-chair of NATO RTO SAS panel 053. Editorial board for *IEEE Security & Privacy* magazine, *International Journal of Hybrid Information Systems*, *International Journal of Signal Processing*, *MIT Press Presence* journal, technical committee for conferences. Member of NATO RTO SAS panel 050 and co-chair of NATO RTO SAS panel 053.

Recent Past

Integrated Demonstrations and Applications Laboratory

Sensors Directorate/ Human Effectiveness Directorate

Air Force Research Laboratory, Wright-Patterson AFB, OH

Senior Technical Advisor and Contracting Officer's Technical Representative for the DARPA UltraLog (agent-based distributed logistics management and planning) Project and the Cougaar distributed agent system

Director of the Advanced Technologies for Information Assurance and Survivability Program (ATIAS), sponsored by DARPA.

Director of Research and Engineering for the Software Protection Initiative, sponsored by the Office of the Under Secretary of Defense for Science and Technology (OUSD(S&T)).

Editorial board for *IEEE Security & Privacy* magazine, *International Journal of Hybrid Information Systems*, *International Journal of Signal Processing*, *MIT Press Presence* journal, technical committee for conferences.

Member of NATO RTO SAS panel 050 and co-chair of NATO RTO SAS panel 053.

Past

Experienced at computer science/computer engineering, software protection, cyber warfare, logistics planning, distributed intelligent systems, information security, research, research management, concept creation, concept development, technical management, and program management. I am experienced in obtaining funding for research and development programs and have extensive experience in working with DARPA, USAF, Army, and non-DoD agencies. I am a prolific and proficient technical writer and technical speaker, and am comfortable in addressing technical and lay audiences of any size. I have broad and deep technical knowledge and have an uncommon ability to communicate technical concepts and ideas clearly and concisely. Experienced at consulting/technical management in a wide variety of technical and technical management areas.

OBJECTIVES

Develop, lead and manage large, technically demanding research and development projects in computer science and engineering, medicine, and human behavior and intelligence. Lead research activities. Lead business development activities. Continue R&D in the fields of computer software and engineering research and development; with particular emphasis on information technology, software protection and information assurance, information security, computer security, real-time virtual environments, distributed systems, modeling and simulation, large-scale systems, distributed software development, cyber warfare & modeling, quantum computing, graphical user interfaces, distributed simulation, user-centered decision support, artificial intelligence, intelligent agents, information visualization, and software engineering. Continue to conduct publishable and marketable research and development in these fields. Expand my technical breadth and depth. Identify and develop large-scale business opportunities. Develop business strategies and innovate business opportunities. Develop proposal strategies in support of long-term research objectives and client needs.

See also: <http://home.att.net/~mstytz>

MILITARY EXPERIENCE Air Force –Lieutenant Colonel (1975 - 1999)

- U.S. Air Force Academy
- Squadron Officer School
- Air Command and Staff College
- Air Force Institute of Technology
- Space Command
- Strategic Air Command
- Missile and Space Operations

EMPLOYMENT HISTORY

7/2004 - Present

Institute for Defense Analyses

Research Staff Member. Propose, lead, manage, and execute advanced research and analysis projects for the Office

of the Secretary of Defense, DARPA, and other organizations. Projects related to information assurance, modeling and simulation, network centric warfare, quantum computing, psychological operations, strategic research planning. List of specific projects available upon request.

Supervisors: Dr Roger Mason, Dr. Brian Cohen, Dr. Gregg Larsen

Supervisor Phone Numbers: Available upon request

1/2004 – 7/2004

Consultant

2/1999 – 12/2003

Air Force Research Laboratory

Chief Principal/Senior Research Scientist and Engineer: Propose, lead, manage, and execute advanced research and development projects for the Air Force, DARPA, and other organizations. Director of the Advanced Technologies for Information Assurance and Survivability Program (ATIAS), sponsored by DARPA. Director of Research and Technology Development for the Software Protection Initiative, sponsored by the Office of the Under Secretary of Defense for Science and Technology (OUSD(S&T)). Mentor. Publish.

Supervisors: Mr. Charles Plant, Mr. Jeff Hughes, Mr. John McDermott, Mr. Barry Frye, Dr Mark Greaves

Supervisor Phone Numbers: Available upon request

11/1989 - 1/1999

Air Force Institute of Technology

Associate and Assistant Professor of Computer Science: Teacher and researcher. The leading faculty member in research funding, publications, and student graduations Awarded grants from the Advanced Research Projects Agency (ARPA), Defense Modeling and Simulation Office (DMSO), the Air Force Office of Scientific Research (AFOSR), the Joint National Intelligence Development Staff (JNIDS), and Wright Laboratories for research in virtual reality, virtual environments, and distributed interactive simulation for time critical targeting, battle management, satellite intelligence analysis, satellite operations planning, aircraft mission planning, low cost aircraft cockpit simulators, and stochastic weather simulation. Managed grant monies that were awarded to the Virtual Environments, 3D Medical Imaging, and Computer Graphics Lab. Initiated and managed the procurements and contracting actions to acquire new equipment and hire technical staff into the lab.

Supervisor: Professor John J. D'Azzo

Supervisor Phone Number: Available upon request

12/1985 - 11/1989

The University of Michigan, Ann Arbor, MI

PhD program: Graduated on time

6/1984 - 12/1985

2nd Space Wing

Software Systems Integration Manager: Developed Wing cost accounting procedures used in the ADVON and during the first year's operation of the Wing. Performed Wing Five-Year Defense Plan (FYDP) budgeting for 1984-1989 period. Developed the 2nd Space Wing information management plan and instituted it on microcomputers. Developed the Wing's SPACENET computer and communications plan for satellite and space operations. Led the design team that developed the 2nd Space Wing seven-year computer systems architecture plan. Performed initial selection and specification of computer systems and software specification for Wing satellite and shuttle operations facilities.

6/1983 - 6/1984

North American Air Defense Command

Orbital Analyst: NORAD Cheyenne Mountain Complex and NORAD Command Post command briefer.

7/1980 - 6/1983

Det 390, AFROTC, University of Michigan

Assistant Professor of Aerospace Studies/Commandant of Cadets: Reorganized the AFROTC Cadet Corps at The University of Michigan. Managed, evaluated, and devised leadership training for a cadet corps of 120 to 160 cadets. Designed and instituted cadet regulations for documenting regulation infractions and potential for promotion and

commissioning. Designed and instituted a freshman introduction to AFROTC and the Air Force program to improve freshman training and increase retention. The program became a model for the Ohio Valley AFROTC detachments. Designed and instituted a sophomore training program to better prepare cadets for AFROTC Summer Camp training and to increase cadet retention. Broadened the AS200 curriculum to include more information on the history of warfare and military thought. Designed and instituted a survival training course taken by Air Force and Army cadets.

7/1979 - 7/1980

351st Strategic Missile Wing, WAFB, MO

Wing Alternate Command Post Flight Commander: Youngest Wing Alternate Command Post flight commander (ever) in SAC when selected. Selected as SAC outstanding crew commander. Recognized authority on the Minuteman II weapon system within the Wing. Earned fifth highly qualified rating on Minuteman weapon system Standardization Evaluations. On alert at the Wing Alternate Command Post when the first actual increase in Strategic Air Command readiness occurred and during the subsequent return to normal alert status.

***There is a proverb that tells of three ways to defeat an enemy.** The first way, which requires the least skill and knowledge, is to defeat the enemy by force. The second way, which requires some skill and knowledge, is to defeat the enemy by causing the enemy to destroy themselves from within. The third way, which is the acme of skill, knowledge, and wisdom, is to convince the enemy that it is in their interest to give you what you want but to also prepare and position your forces so that the second or first option can be used to greatest effect should it be necessary.*