Curriculum Vitae of Matthew Schor

Updated October 18, 2016

Engineer with degrees in nuclear engineering and management. Three decades of professional experience in the satellite, research development, sensors, and transportation industries. Developed nuclear sensor networks for homeland security and defense, built leading North American transportation industry tracking company, and implemented industrial sensor and operations systems for major airports and seaports in Asia and North America. Technical expert witness in GPS patent dispute.

EDUCATION:

Massachusetts Institute of Technology	Science Masters, Nuclear Engineering
George Washington University	Masters Business Administration, Science & Technology
University of Virginia	Bachelors of Science, Nuclear Engineering

GPS EXPERTISE LLC Herndon, VA
Owner 2015 –2016
Providing business start-up and expert witness services.

TROJAN DEFENSE LLC Herndon, VA
Owner 2012 –2015
Provided research and development services to DARPA Defense Sciences Office. Performed market research, product introduction plans and assistance and transitioning government developed products into commercial markets. Supported DARPA's SIGMA program, a networked radiation detector system concept with rapid deployment cycle. Developed concept of operations (CONOPS) to demonstrate and deploy detectors with existing industrial infrastructure.

Retained as expert witness by the defense counsel in patent infringement case: Freight Tracking Technologies vs. Virginia International Terminals, U.S. District Court, Eastern District of Virginia.

Mantech International, Systems Engineering and Advanced Technology Group Arlington, VA
Sr. Principal Engineer 2010 –2012
• Provided physics modeling to the Domestic Nuclear Detection Office, DHS. Trade-off analysis and Concept of Operations for nuclear isotope via gamma identification and imaging systems.
• Lead project engineer for next generatioin nuclear material detectors for U.S. Customs.
• Employed MCNP & GEANT Monte Carlo physics simulation tools.

TROJAN DEFENSE LLC Herndon, VA
Chief Executive Officer and Founder 2007 –2010
• Awarded two Small Business Innovative Research (SBIR) contracts with the Domestic Nuclear Detection Office (DNDO), Department of Homeland Security for development of solid-state low power neutron detector. Perform nuclear sensor physics simulation, research, development and testing.

Government Business, SkyBitz Government Business, SkyBitz
• Contract basis government business development.
• Identified and managed teaming relationships with systems integrators: DoD and DHS.
• Supported CENTCOM field trial of tracking services in certain theatres of operations with rapid certification of COTS equipment via US Navy test facilities and aircraft.

WHERENET CORP Santa Clara, Ca
Sales Executive, & Director Homeland Security 2005 –2007
• Managed sales Atlantic trade region (East Coast / Europe / Middle East) serving retail supply chain.
• Invented hybrid GPS and Real Time Locating System (RTLS) hardware and software solution to improve semi-automated marine terminal operations. Interfaces with control system Terminal Operating System (TOS) using non-proprietary data communications.
• Managed global shipping container product solution.

• Closed technical sales with leading ports and container terminal operators including Maher Terminals and APM Terminals North America.

MATRICS, INC. Rockville, MD
Director, RFID Systems Engineering 2004
• Program manager for RFID baggage management system, Hong Kong Airport. Control system upgrade, increased security and operational efficiency for timely loading of aircraft including passenger bags and cargo for retail supply chain.
• Managed U.S. and international team of engineers, onsite installation.
• Real-time data integration into legacy IT systems using non-proprietary automation technology.

INDEPENDENT CONSULTANT – Homeland Security Herndon, VA
International Container Security Plans and Operations 2003-2004
• Advised clients on international Intermodal container operations and security.
• Established relationships with Hongkong International Terminals for Operation Safe Commerce, a U.S. Government funded effort to explore technologies including RFID, RTLS, and satellite tracking to secure the Intermodal retail supply chain.

SKYBITZ, INC. Dulles, VA
President and Founder 1994-2003
• Built the leading U.S. telematics & logistics company proving services to the transportation industries via a Software-as-a-Solution (SaaS) platform using open source data sharing. Significant focus on land transport retail supply chain.
• Built company from concept through commercial launch.
• Managed product manufacturing, safety certification, trucking and vehicle industry adoption.
• Managed patent applications, international expansion.
• Based on Global Locating System tracking technology introduced to market, SkyBitz ranked #2 fastest growing US wireless company by revenue over the previous 5 years by Deloitte/CTIA.
• Funded on SBIR grants from DARPA, Air Force and private investment.

MOBILE COMMUNICATIONS HOLDINGS INC. Washington, DC
Director, Satellite Systems. Global Communications
• Designed Ellipso low Earth orbit mobile satellite commercial communication system.
• Redesigned the satellite solar arrays resulting in a $400 million reduction in the capital requirements.
• Designed the constellation orbits resulting in two US patents.
• Solved unique radiation hazard for solar array via high efficiency concentrator solar array design.

SCHAFER CORPORATION, Arlington, VA
Member Technical Staff, Technology Management for DoD / U.S. Missile Defense
• Spacecraft Systems Engineer supporting the Strategic Defense Initiative Organization.
• Provided program management support for the historic Clementine lunar mapping mission, the first U.S. lunar mission since Apollo, and progenitor of World Space Imaging Corp.
• Performed system architecture analysis on the Brilliant Pebbles space based interceptor.
• Multi-physics thermal designed for Space Shuttle instrument (SUSIM) to observe the sun. Successfully redesigned thermal control and validated on orbit.

DEFENSE SYSTEMS INC. McLean, VA
Senior Spacecraft Engineer. Thermal Control and Radiation Effects
• Senior Spacecraft Engineer. Designed 17 small communication & research satellites. Launched on Pegasus, Space Shuttle, Atlas and other rockets for the U.S. Air Force, Navy, and Army. One of these, the MicroSats, was the first low Earth orbiting bent-pipe communication transponder constellation.
• Responsible for all thermal design, radiation effects on spacecraft electronics and solar arrays.
• Performed launch vehicle integration, vibration, shock, acoustics, safety analysis, and propulsion system design.

GENERAL ELECTRIC INC. Valley Forge, PA

Space Systems Engineer / Nuclear Engineer, Space Nuclear Power Systems

- Designed various aspects of the SP-100 space nuclear power system for the Department of Energy.
- Designed thermo-electro-magnetic pump system for cooling 100 kWe space nuclear reactor system.
- Designed micrometeoroid impact models and protection system.
- Tested lightweight micrometeoroid protection system with NASA.
- Invented novel reactor control system consisting of beryllium "flower petal" radial reactor control system.

HONORS:

U.S. Department of Energy. Graduate fellowship
Institute of Nuclear Power Operations, Undergraduate scholarship
Engineer In Training (EIT) Certificate

PATENTS:

US 5788187 Elliptical orbit satellite, system, and deployment with controllable coverage characteristics
US 6,102,335 Elliptical orbit satellite, system, and deployment with controllable coverage characteristics
US Patent Application No. 08/877,571 Method and apparatus for precision geolocation
US Patent Application US2009/049232 Neutron detection semiconductor device and method for manufacture