



### TECHNICAL SKILL

Rigorous academic foundation in electrical engineering, specializing in electromagnetics, signal analysis and applied mathematics. Broad experience and expertise in analog and digital signal processes, with particular strengths in radio frequency (RF) systems analysis, modeling and development. Excellent knowledge base in antennas, propagation, and numerical electromagnetics. *Specializing in inventive problem solving and technical development of proprietary concepts.*

### EXPERIENCE

Over twenty years of professional experience. Consulting since 1998, and self-employed at **Signal Scientific, LLC** since September 2000. Activities have included the development of concepts for patentable technology in radio frequency identification (RFID), radar, RF location, ultra-wideband (UWB) signal-processing and applications; and development of electromagnetic scattering and propagation modeling capability. Consulting experience has also included optical lens design, and hourly consulting in the RF Location, RFID, and Digital RF Memory (DRFM) areas.

Employed at **Georgia Tech Research Institute (GTRI)**, Georgia Institute of Technology, Atlanta, GA, 1989-2000 and 2002-2006. Continuing to support key programs in GTRI's Sensors and Electromagnetic Applications Laboratory (SEAL) on a part-time basis. Fifteen years of experience conducting and directing research, development, analysis, computer modeling, and testing, in the areas of radar and radar countermeasures, RFID systems, and other RF systems. Radar work has emphasized coherent systems, including synthetic aperture radar (SAR) and sense-through-the-wall (STTW) imaging, ultra-high range resolution (UHRR) and non-cooperative target recognition (NCTR). Experience includes related hardware developments in antennas, digital RF memories (DRFMs), RF and IF test beds, microwave polarization networks, and UWB circuits. Author of and contributor to numerous technical reports and other publications. Skilled and experienced at presentations to small and large audiences. Lecturer in several Georgia Tech Continuing Education short courses.

Employed at **Electromagnetic Sciences, Inc.** (now **EMS Technologies**), Norcross, GA, 1982-1986. Designed various passive microwave components and subsystems, including ferrite phase shifters, circulators, power dividers, phased array modules and array controllers, primarily for radar and satellite applications. Led several development and hardware prototype programs as project manager and lead microwave engineer. Directly supported the marketing department during the last year and a half of employment.

### EDUCATION

Ph.D. and Master of Science in Electrical Engineering, and Bachelor of Electrical Engineering (With Highest Honor), all from Georgia Institute of Technology, in 2002, 1987 and 1982, respectively.