Signal Scientific, LLC
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TECHNICAL SKILL

Rigorous academic foundation in electrical engineering, specializing in electromagnetics, signal and system analysis, and applied mathematics. Extensive experience in the analysis, modeling and development of radio-frequency (RF) and microwave systems and subsystems for applications including radar, electronic warfare, microwave signal-processing networks, radio-frequency identification (RFID), radio location, antennas, and communications. Broad expertise in areas including signal processing, computational electromagnetics, microwave components and networks, antennas and propagation. *Specializing in inventive problem solving and technical development of innovative concepts.*

SUMMARY OF EXPERIENCE

Over twenty-five 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, and RF location; microwave network design and analysis; numerical analysis using HFSS and ADS; marketing and business development; and development of electromagnetic scattering and propagation modeling capability. Consulting experience has also included optical lens design, and hourly consulting in the EMF, RF-Location, RFID, and Digital RF Memory (DRFM) areas. Skilled and experienced at presentations to small and large audiences. Lecturer in several Georgia Tech Continuing Education short courses.

Employed at **Georgia Tech Research Institute (GTRI)**, Georgia Institute of Technology, Atlanta, GA, 1989-2000 and 2002-2006. Continuing to support GTRI's Sensors and Electromagnetic Applications Laboratory (SEAL) on an hourly-as-needed 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.

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., Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA, 2002.
Master of Science, Electrical Engineering, Georgia Institute of Technology, 1987.
Bachelor of Electrical Engineering (With Highest Honor), Georgia Institute of Technology, 1982.