

Matthew A. Trippy

Education

- Master of Science, Electrical Engineering, California State University Long Beach, 1993
- Bachelor of Science, Electrical Engineering, Minor: Mathematics, UT El Paso, 1987
- Bachelor of Science, Applied Physics, Minor: Mathematics, Angelo State University, 1986

Security Clearance

- Top Secret (SCI eligible)

Summary of Qualifications

- Over 25 years' experience as an Electrical Engineer, Avionics Engineer, and Software Developer
- Machine Learning systems architect for embedded and electronic systems vulnerability analysis against HPM waveforms
- Provides expertise for RF signals to target systems, including RF wideband analysis, application reverse engineering, and machine learning within complex systems

Previous Accomplishments

Radiance Technologies Inc, 09/2014 – Present

Principal Cyber Engineer

- Responsible for development of machine learning architecture associated with a wide array of embedded and electronic systems interacting with High Power Microwave (HPM) systems
- Subject Matter Expert supporting 90th Cyber Operations Squadron (COS), responsible for course development in Embedded Systems, Python, and Reverse Engineering.
- Project lead and lead tester for Cyber Training and Evaluation Portal (CTEP) supporting 90th COS Initial Qualification Training (IQT), using an open-source Learning Management System (based on Moodle open source project). Led architecture changes utilizing PHP, Javascript, and MariaDB. Implemented CI/CD processes using agile development and deployment via Dockerized Jenkins Automation Server and Git repository.
- Instructor and course developer for the Python programming course for developers at the Air Force 90th Cyberspace Operations Squadron.

Enova Concepts, LLC, 04/2012 – 09/2014

Consultant/CEO

- Developed a machine learning framework to Air Force Research Laboratory's (AFRL) Asian Office of Aerospace Research and Development (AOARD) office
- Delivered machine assisted analysis of technical studies of interest to the agency

TASC Incorporated, 07/2007 – 07/2014

Technical Advisor

- Provided subject matter expertise in RF systems, Industrial Control Systems, and Cyberspace development projects, with a managed budget over \$100M
- Tested and recommended for deployment, Cyber Software Capabilities
- Developed Adaptive Cyber Defense capability for TASC Inc.

BAE Systems, Inc, 04/2004 – 07/2007

Lead Engineer / Exercise Manager

- Provided engineering and training support to transformation of previous cyber capability into the Falconer Air and Space Operations Center capabilities suite
- Responsible for integration of cyber planning software into exercises such as Blue Flag, CJTFEX, and Global Strike Pilot

Karta Technologies, 01/2002 – 04/2004

Director of Engineering Applications

- Responsible for the RF Subsystem redesign for the Cobra Dane ground radar system
- Managed Circuit Card redesign for AN/ALR-69 Radar Warning Receiver
- Responsible for cost, schedule, and technical performance for \$2M+ workload

Relevant Training & Certifications

- Certified Security Professional (CISSP, GPEN)
- Certified Project Management Professional (PMP)
- Advanced Python for Pen Testers (48 hours): trained on socket programming, web server deployment, security/vulnerability testing of web apps (SANS Institute)
- Completed 40-hour course covering (GSM & other) wireless communications systems

Professional Affiliations

- IEEE Member