

Gregory Peter Le Sage

San Ramon, CA | Email: lesagegp@gmail.com | Phone: (650) 241-9611 | Website: gplesage.com

SUMMARY

I am a senior RF, microwave, and systems engineer with a Ph.D. in Electromagnetics and more than twenty-eight years of experience in HFSS-based EM simulation, high-frequency measurement, antenna design, waveguide structures, high-power microwave systems, and high-power laser systems at SLAC, LLNL, and the CIA. My work spans concept development, simulation, fabrication, and validation of advanced RF systems. I have a strong record of peer-reviewed publication in RF, microwave, and electromagnetic system design, reflecting sustained technical leadership and impact.

CORE TECHNICAL STRENGTHS

- HFSS (expert), microwave structures, waveguides, resonators, antennas
- RF/microwave measurement: VNA, spectrum/network analyzers
- High-power RF systems: klystrons, modulators, high-voltage pulsed systems
- RF optimization and data analysis (Python, MATLAB, LabView)
- System-level RF architecture, troubleshooting, and validation

EXPERIENCE

Lockheed Martin Space – Design Engineer

April 2026–Present | Sunnyvale, CA

- RF/Antenna Engineer in the Space Antenna Department at Lockheed Martin, supporting the design, modeling, and analysis of advanced spaceborne antenna systems and RF hardware for space applications.
- Perform electromagnetic simulation, RF analysis, and antenna development using Ansys HFSS and related tools, contributing to high-frequency space communications, microwave structures, and advanced antenna architectures.

EPAM Systems - Engineer

Feb 2026 – April 2026 | Cupertino, CA

- Engineering consultant supporting antenna development for commercial electronics, including mobile-device RF requirements and integration constraints.
- Short-term contract concluded after transition to Lockheed Martin Space.

SLAC National Accelerator Laboratory – Senior Electrical Engineer / Scientist

2020–2025 | Menlo Park, CA

- Designed, simulated, and validated microwave RF components including communication

systems and accelerator-related RF systems

- Performed full-wave EM modeling in HFSS for complex structures, including optimization, parametric sweeps, and high-accuracy 3D field extraction
- Worked extensively with high-power RF systems: multi-hundred-kV, multi-hundred-amp modulators and klystron systems
- Built and executed high-fidelity RF measurement setups using VNAs and other advanced diagnostic instrumentation
- Contributed to RF circuit design of E-band receiver including component selection, transmission-line layout, impedance control, grounding strategy, and board bring-up/validation
- Led technical teams and formally mentored junior engineers through SLAC's official mentoring program; coordinated cross-disciplinary RF design efforts

Central Intelligence Agency – Technical Officer

2004–2017, 2019–2020 | Washington, DC

- Research scientist and technology innovator supporting numerous overseas assignments
- Designed and evaluated RF and electromagnetic systems for specialized operational technology
- Guided contractor development of technology for national security missions
- Developed miniature power systems
- Contributed engineering expertise in RF propagation, slot array antenna design 3 GHz to 38 GHz, and system-level reliability

U.S. Department of State – Information Management Specialist

2017–2019 | Afghanistan

- Operation and upgrade of overseas communication system
- Frequent executive presentations and system-improvement planning
- Technical mentoring role for others who rotated through the site on a regular basis

Lawrence Livermore National Laboratory – Electrical Engineer

1997–2004 | Livermore, CA

- Principal Investigator for development of a state-of-the-art electron injector system for a 100 MeV linac facility
- Supported advanced laser and RF experiments, including electron-beam diagnostics, ultrafast laser systems, and custom RF hardware
- Led the execution of an LLNL Strategic Initiative for Thomson Scattering
- Group Leader (3 years) with programmatic responsibility including fielding experiments at the Nevada Test Site; selected for LLNL's first cadre of Emerging Engineering Leaders.

EDUCATION

Ph.D., Electromagnetics – University of California, Los Angeles (UCLA)

- Minor fields: Lasers, Plasma Physics

M.S., Electrical Engineering – UCLA

B.S., Electrical Engineering – UCLA

PUBLICATIONS & IMPACT

- 7 first-author peer-reviewed journal papers
- 2,366 citations (Google Scholar)
- Research includes microwave structures, RF systems, and advanced EM modeling

ADDITIONAL SKILLS

- CAD tools (SolidWorks)
- UHV experience
- Precision machining
- Advanced 3D printing