

Mark Opfell

Software Exposure & Skills

Programming Language	Python
Python Packages	NumPy, SciPy, Matplotlib, Json, Requests
Tools	Pycharm, Vi, Bash, Git, GitHub, Excel (Wizard)
RF Standards	FCC, ITU
Life	Mountaineering, Portfolio Management

Work Experience

Job Title	RF Systems Engineer	
Employer	Kymeta	Redmond, WA
Period	February 2018 – Present	

Developed and executed combined OSI application, transport, network, and physical layer level test cases for a multi-terminal Ku-band ground station based on software defined electronically scanned antennas. Took on RF Systems project management duties helping guide and educate team members towards a unified view of processes, languages, and tools.

Job Title	Software Engineer RF Systems	
Employer	Space Systems/Loral	Mountain View, CA
Period	October 2016 – January 2018	

Award winning role of leading, developing, and managing a production Python client and services to exchange data between a PostgreSQL database storing 17 years of antenna data and an RF downlink capacity tool.

Job Title	Senior RF Systems Engineer	
Employer	Space Systems/Loral	Mountain View, CA
Period	March 2015 – October 2016	

Lead successful Forward/User downlink payload re-design, deployment, launch, in-orbit test, and handover of geostationary communication satellite Echostar 21 operating the receive at Ka-band and transmit at S-band. Wrote specifications, triaged vendors, reviewed test data collateral, and directed the installation, unit level and system level tests of the following passive and active RF units: diplexer, waveguide, directional coupler, band pass filter, low noise amplifier (LNA), downconverting mixer, high power load, circulator, coaxial cable, master reference oscillator, and synthesizer.

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Job Title	RF Systems Engineer	
Employer	Space Systems/Loral	Mountain View, CA
Period	September 2013 – March 2015	

Developed Python analysis tool to model complex amplitude and time delay of 10,000+ passive and active electronic units for a ground-based beam-forming network.

Awarded by the CEO for saving \$0.25 Million and 3 weeks of production schedule with Python tool simulations.

Job Title	Associate RF Systems Engineer	
Employer	Space Systems/Loral	Mountain View, CA
Period	June 2012 – September 2013	

Automated calculations for the world's highest capacity satellite's gateway downlinks at 32,000 Watts of transmit power.

Developed and maintained budgets analyzing RF channel performance over 80 unique countries during 1.5 year satellite design cycle.

Education

Degree	Bachelor of Science in Electrical Engineering
University	University of California, Davis
Period	June 2009 – June 2012

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