Jonathan Clayton Stumpf

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Systems engineer delivering data-driven solutions to complex engineering problems. Rigorously applies theory with over 5 years of industry experience in designing, optimizing, testing, and troubleshooting modern aircraft communications and surveillance systems.

WORK EXPERIENCE

Harris Corporation **Herndon, VA**

Systems Engineer II, Modeling and Analysis June 2012-Present (5 years)

- Lead Systems Engineer supporting Harris' MLAT System. Responsible for service volume design; including RF coverage predictions, horizontal dilution of precision calculations, and probability of detection. Coverage analysis and system optimization have allowed for the expansion of the MLAT System into Los Angeles and Charlotte airspaces.
- Model and analyze MLAT and ADS-B system performance with self-innovated approaches and scripts. Five years of experience and attention to detail provide a full understanding of both the MLAT and ADS-B systems, allowing more efficient testing and forward thinking solutions.
- Perform 'fire drills,' which require swift understanding, problem solving, and implementation to maintain high system availability.
- Overcome high interference RF environments within Charlotte and Los Angeles airspaces to meet customer requirements for Low Power ATCRBS, as well as Mode-S and ADS-B link technologies.
- Develop system requirements and perform requirements traceability.
- Develop and manage software using Matlab and C which aids technical analysis of system performance and coverage predictions. Experience in developing in-house software that meets formal requirements, vetted through formal testing.
- Design and execute test procedures to strain MLAT and ADS-B system against formal requirements.
- Present technical analysis to customer (FAA) in formal setting.

Johns Hopkins Applied Physics Laboratory **Laurel, MD**

Electrical Engineer Intern May 2009-August 2011

- Develop formal test to measure temperature resistance of a cell phone's vibration motor. Used Matlab to ingest output of analog to digital converter.
- Execute live testing to model interference levels vs cell phone connection. Test setup was performed in LabView and measured Bit Error Rate and Frame Error Ratio rate to quantify performance.

EDUCATION

Lehigh University, The P.C. Rossin College of Engineering and Applied Science
Bachelors of Science in Electrical Engineering, 2012
Bachelors of Science in Integrated Business and Engineering, 2011

TECHNICAL SKILLS

- Matlab, C, Unix, SVN, Bash, Cron, PuTTY, Requirements Management, Test, Link Budget Analysis, HTML, CSS, Microsoft Office

PROFESSIONAL DEVELOPMENT AND LEADERSHIP

- **Amateur Radio Technician Class -** Training within Harris to prepare students to receive HAM Radio Technician License
- **Lehigh University Varsity Men's NCAA Division I Lacrosse Team (2007–2011) -** Captain (2011), 2011 Patriot League Scholar Athlete of the Year, 2011 NCAA Academic All-American
- **Electrical Engineering Design Project-** Developed, designed, and implemented an idea for a brake pad sensor, which incorporated a capacitive circuit, microcontroller, and LED screen. This brake pad sensor provides a digital readout of an automobiles brake pad life to the driver.