**Veronica Medrano**

1336 N. Damen Ave. Unit 106, Chicago, IL, 60622

915-740-6007

Veronicanoel12490@gmail.com

**PROFESSIONAL EXPERIENCE**

HARRIS CORPORATION, GEOSPATIAL SYSTEMS Clifton, NJ

*Systems Engineer in Software Integration and Test April 2017 – Present*

* Write test data generation scripts to verify GPS Navigation Display software against customer requirements

Write Python application to simulate anomalies in GPS constellation to verify anomaly processor functionality

* Develop test procedures to execute GPS Navigation Display tests
* Developed automated programs to execute multiple test data generation scripts and load data into database
* Lead software development engineers in troubleshooting software test issues in the Front-End (User Interface) and Back-End (server/database)
* Modified test code using innovative mathematical approach to resolve issues with prior data sets

Write Python program to parse through GPS Display test logs to verify critical statistical customer requirements

BOEING NATIONAL SYSTEMS PROGRAMS Mexico City, MX

*Lead Systems Engineer August 2016– April 2017*

* Led team of engineers to execute implementation tasks with a high focus on requirements verification in support of gate closure for a closed area program
* Led team of approximately 30 multi-discipline engineers to successfully execute a hybrid (SRR, PDR, CDR) Technical Design Review, resulting in approved Program implementation plan
* Responsible for providing product and requirements verification status to the customer and program office on a weekly/daily basis
* Presented articulate Engineering Change Packages to Configuration Management personnel at Engineering Review Boards (ERBs); received positive team feedback on deliveries
* Accomplished quick turnaround of delivering system test updates for critical milestone; received recognition award
* Developed and formalized innovative peer review process for analyses; trained customers on the guidelines
* Established rigorous set of work product criteria and product tracking plan, resulting in exceedance of customer expectations
* Analyzed new subsystems and technologies, contributing to ability to post deliverables on behalf of Lead Engineers
* Served as liaison between suppliers, customers, and Boeing engineers in support of project deliverables

BOEING SATELLITE SYSTEMS INTERNATIONAL Mexico City, MX

*Integration and Test Engineer* Hermosillo, MX

*May2015– January 2016*

* Developed Aeronautical Operations Plan for the Mexican Air Force, outlining logistics and efficient flight paths in preparation for Mexsat satellite terminal testing in Mexico

Tested Aeronautical terminal in testbed integration environment to ensure product readiness at customer site

Coordinated with Boeing flight test managers in Washington regarding flight safety protocols and training  
requirements, proposing similar plans for flight test engineers in Mexico

Collaborated with foreign customers on proposed test plans, resulting in approved flight test campaign

Developed test procedures and satellite modem user manuals

Oversaw critical process to ship Aeronautical terminal, RF components, and supporting items overseas, reporting directly to Program Manager on product tracking

Conducted trade-off study to determine most viable headset for making phone calls during aircraft flight

Led foreign customers in satellite procedural operations training

* Tested various terminal-types in fast-paced, on the field environment at customer sites and in vehicles, troubleshooting network and GPS issues where necessary
* Managed effort to fix defects on terminal SIM cards, saving the program valuable time and resources

BOEING SATELLITE DEVELOPMENT CENTER El Segundo, CA *Payload Systems Engineer* Tysons, VA

Hagerstown, MD

*January 2014– July 2016*

Executed and debugged critical software-driven payload in-orbit and ground system tests for Mexsat-Morelos 3 satellite

Developed spacecraft unit degradation analysis for Intelsat 29e in-orbit test cases to ensure in-orbit test phase readiness; received Boeing certificate for exceptional performance

* Guided test engineers in the execution of antenna troubleshooting tests at satellite ground station
* Monitored critical spacecraft commanding test conducted from Mission-Control
* Developed innovative fail-safe in-orbit payload analysis for Intelsat 29e, influencing future Intelsat in-orbit test campaigns

Led Intelsat 35e payload engineering test team in closure of unit integration test phase

* Updated spacecraft telemetry and alarm limit files in preparation for multiple test phases
* Reviewed and analyzed payload test data and spacecraft telemetry, contributing to successful data sell-offs
* Configured payload RF switches in preparation for payload performance tests on the ground and in orbit
* Collaborated with team to test innovative MPA (multi-port amplifier) design in research and development lab
* Modified and analyzed payload repeater block diagram designs
* Developed communications link budgets and worst-case analyses to ensure satellite performance meet customer requirements
* Trained multiple teams in test processing skills

NATIONAL NANOTECHNOLOGY INFASTRUCTURE NETWORK Washington, DC

HOWARD UNIVERSITY *June 2013-August 2013*

*Student Research in Growth and Characterization of Synthetic Diamond*

* Grew polycrystalline synthetic diamond using HVCVD (Hot Filament Chemical Vapor Deposition)
* Analyzed diamond structure using scanning electron and atomic force microscopes
* Constructed electrical contacts on diamond and analyzed its electrical properties
* Assisted other students in the instruction of device operation
* Presented research in Georgia Tech NNIN (National Nanotechnology Infrastructure Network) Convocation, resulting in publication of research in NNIN research journal

L-3 COMMUNICATIONS MISSION INTEGRATION DIVISION Greenville, TX

*Senior Co-op Electrical Design engineer January 2012-August 2012*

* Collaborated with a team of eight engineers to design the lighting system of a special mission aircraft
* Analyzed switch/relay circuit schematics and wire harnesses
* Coordinated with electronics parts vendors to verify characteristics and quality of parts
* Presented system designs to lead engineers and Program Office
* Successfully developed Bill of Materials (BOMs)

SPACE ENGINEERING INSTITUTE College Station, TX

*Student Research in Space Based Solar Power January 2009-May 2011*

* Worked with diverse team to create a satellite module that can test the retrodirective beam control method of sending microwave power back to Earth
* Created layout of spacecraft power system
* Tested RF design that models the retrodirective system in lab
* Utilized Simulink to design satellite phase conjugation algorithm model
* Presented research to NASA JSC mentors

**ADDITIONAL EXPERIENCE**

EMBEDDED SYSTEMS DESIGN Los Angeles, CA

*Hobbyist March 2015-July 2015*

* Built and tested robot using Python programming language and Raspberry Pi microprocessor
* Added user control functionality to robot by running device using keyboard presses
* Utilized mobile shell client to command robot via IPhone
* Implemented sound board using Python and Raspberry Pi; succeeded in playing back sound with push buttons
* Enhanced troubleshooting skills using Linux commands on LXTerminal

THE GREEN PROGRAM Reykjavik, IS

*Student and Capstone Project Leader August 2013*

* Conducted experiential hands on site visitations to renewable energy facilities
* Collaborated with diverse capstone team to design an autonomous control system that would decrease the risk of electrocution from solar panels during a fire, resulting in positive feedback for idea originality
* Gained global perspective and enhanced intercultural communication skills

SENIOR DESIGN PROJECT College Station, TX

*Student Researcher January 2013-August 2013*

* Coordinated with Electrical and Aerospace Engineering teams to design a reliable power distribution system for a spacecraft that can land near an asteroid
* Created one line-diagram of secondary AC power system
* Created designs of a backup power system in case of emergency; utilized Autocad for final design

Volunteered to present all team designs to the Aerospace Engineering Department and industry leaders

AGGIE-CHALLENGE TEXAS A&M ENGINEERING PROJECT College Station, TX

*Student Research in Enhanced Lithium-Ion Battery Performance January 2013-April 2013*

* Coordinated with mechanical and chemical engineering students to design potentially transparent batteries; awarded 2nd place at Texas A&M Engineering Project Showcase
* Built and analyzed electrical charging and discharging test circuit for various battery electrodes

**EDUCATION**

**TEXAS A&M UNIVERSITY** **College Station, TX**

*Bachelors Degree in Electrical Engineering December 2013*

* Graduated in top 10% with 3.4 GPA

**HONORS**

* Boeing NSP Recognition Award for Successful ECP-086 Technical Design Review *January 2017*
* Boeing NSP Recognition Award for Quick Turnaround of System Test Updates for *January 2017*

Upcoming Critical Milestone

* Boeing Recognition Program Certificate for Spacecraft Redundancy Management  *February 2016*
* Research on Growth and Characterization of Synthetic Diamond Research published in *August 2013*

National Nanotechnology Infrastructure Network Research Experience for Undergraduates

(NNIN REU) Journal

* 2nd place for research on transparent batteries, Texas A&M AggiE-Engineering Project Showcase *April 2013*

**ACTIVITIES**

* Building Neural Network to recognize human hand digits *8/2017–Present*
* Attended web application and deep learning introduction class *7/2017*

offered in New York City; created web application using Python web framework (Django)

* Reading to Kids Volunteer; reading to Kindergarten students in Los Angeles *9/2016–12/16*
* School on Wheels, tutor for homeless child *6/2015–11/2015*
* Volunteer: Big Brothers Big Sisters of the Brazos Valley *6/2011–6/2013*
* Writing poetry, short stories, and vignettes
* Playing piano; ten years of classical piano training

**TECHNICAL SKILLS**

* Python, UNIX/LINUX, Bash/Batch Programming, SQL, Awk, XML,Grep, Django, C++, JAVA, R, Xilinx (Verilog), MATLAB (Simulink, Simscape), VBA (Visual Basic for Applications), Mentor Graphics, PSPICE, LabVIEW (NI Elvis), Microsoft Office (Excel, Word, PowerPoint, Visio, Outlook)