NATE ALAN MOEHRING

Certified LabVIEW Architect

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PROFILE

Passionate about software engineering in LabVIEW.
9 years of experience developing Command and Control Ground Software.
11 years of experience in the aerospace industry.
Effective team leader, teacher, and mentor with a genuine concern for people.

EXPERIENCE

Summer 2005-Present **Orbital Sciences Corporation**, Gilbert, AZ
Principal Software Engineer
Contributed to the testing and on-orbit checkout of Landsat 8, GeoEye-1, and C/NOFS satellites. Responsibilities included leading a team in the development of Command and Control GSW feature development for I&T and Mission Operations, spacecraft and simulator test scripts, and database engineer for the Command and Telemetry database.
Developing RF functional tests and TVAC chamber software enhancements for Iridium NEXT communication satellites.
Contributing to design decisions for ICESat-2 I&T ground software, database, and test scripts. Mentoring new engineers on the GSW team.
Provided Linux support for Integration & Test of the OCO-2 science satellite.

Spring 2004-Summer 2005 **StarVision Technologies**, College Station, TX
Software Engineer, Charter Member
Software and hardware development of a robotic mobile platform used in the testing and demonstration of an experimental navigation sensor system designed for Autonomous Aerial Refueling of Unmanned Aerial Vehicles.
Software development of a handheld commercial star identification product based on star tracker technology.
Ported novel surface mapping algorithms written in Matlab into C to support real-time embedded applications.

Fall 2003 **Spacecraft Technology Center**, College Station, TX
Software Engineer
Software development of a high resolution camera system to be used on the International Space Station. Prototyped all software subsystems and interfaces including the EXPRESS Rack Interface Controller, camera, digital data recorder, crew interface panel, and controller. Created an API to abstract the communication protocol and payload functionality to simplify development of the Ground Support Equipment software.

Summer 2000, 2003 **National Instruments (NI)**, Austin, TX
Internship – Research and Development
Prototyped hardware and software to integrate a DSP into an existing NI FPGA product to add floating point processing capabilities.
Developed a prototype cross compiler from G to Lego Assembly to natively support Lego Mindstorm programming from NI LabVIEW. This has since developed into the software package included in Lego's Mindstorm NXT robotics kit.
Developed an automated testing system used in the production testing of PXI systems and to verify cross-product compatibility between NI's PXI products.

Summer 2001 **Advanced Energy Industries**, Fort Collins, CO

Internship – Research and Development
Developed the hardware and software for a distributed I/O device used in the automated testing of semiconductor manufacturing power supplies. This device provides Modbus/TCP control of analog I/O, digital I/O, relays, and digital potentiometers.

Spring 2001-Fall 2002 **Enable Communications,** Bryan, TX
Engineer, Co-Founder
Startup technology company focused on consumer telephony and VOIP peripherals. Awarded support from the Bryan/College Station Economic Development Center's technology incubator.

Fall 1999-Spring 2003 **Department of Engineering Technology and Industrial Distribution,** Texas A&M
Graduate Assistant Researcher
Development of a low-cost semiconductor tester designed to run in parallel with large ATEs to improve semiconductor-testing efficiency.
Development of an experimental sobriety tester using an HP iPAQ.

Graduate Assistant Teacher – Introduction to Electronics Technology
Instructor for an introductory electronics course teaching software tools (LabVIEW, Altera Max+Plus II, Cadence OrCAD) and fundamental electronics.

Student Technician II – Automation Laboratory
Developed an electrical arc emulator used in the development of intelligent power supplies for semiconductor manufacturing.
Developed the firmware for a commercial closed-loop pressure control device.

LANGUAGES

LabVIEW, PERL**,** C++, Java, Visual Basic, Motorola assembly,
ASP, HTML, JavaScript, SQL, XML

EDUCATION

Texas A&M University, College Station, TX
Fall 2003 *Master of Science in Management Information Systems, Enterprise Development*
GPA Overall: 4.0

Fall 2001 *Bachelor of Science in Electronics Engineering Technology*
GPA Overall: 3.442 GPA in Major: 3.875

HONORS

Fall 2013	SPOT Award, Orbital Sciences – Responsive support for Landsat-8 data analysis
Fall 2011	Special Award, Orbital Sciences –Technical achievement for Landsat-8 hotbench
Spring 2011	Red Box Reward, Orbital Sciences – Exceptional teamwork and innovation
Summer 2009	Star Award, General Dynamics AIS
Spring 2007	Certificate of Excellence, General Dynamics AIS
Fall 2005	Silver Eagle Award, General Dynamics C4S
Fall 2005	Department of the Year, Ground Software, General Dynamics C4S - SASS
Fall 2001	Outstanding Senior Award, Electronics Engineering Technology
Spring 1998-Spring 1999	Texas A&M University Dwight Look College of Engineering Distinguished Student Award
Spring 1997	Valedictorian, Bandera High School

ORGANIZATIONS

Spring 2013-Present	Sonesta Estates HOA Vice President
Spring 2010-Present	Advanced Phoenix LabVIEW User Group (PLUG+), Coordinator
Fall 2004, 2008-2010	First Lego League – Robotics competition, Judge and Mentor
Fall 2001-Fall 2003	Aggie Lutherans – Campus ministry, Vice President 2002
Fall 1999-Fall 2001	Tau Alpha Pi – Engineering Technology National Honor Society, President 2000
Fall 1997-Spring 2005	Young Adult Resource Persons (YARPs) – Youth ministry, Coordinator 2003-2005