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Scott Myers

Technical Résumé

Summary

Goal: Contract LabVIEW programming, project management, systems engineering for product development, or applied engineering.

Applicant is an early adopter of LabVIEW and has significant experience with systems engineering projects in the fields of science, industry and the military; almost all projects involve integration of hardware and software, often with original electronics. Applicant has advanced LabVIEW user interface skills, a broad science background and shows a commitment to science and engineering leadership. Engineering samples are available at http://www.desktoplabs.com.

Skill Keywords

Technical

Programming*:* G (LabVIEW), Java, Visual Basic, Electronic Workbench,Test Stand, LabWindows, Matlab, Simulink, Mathematica, DLL, CIN, XML, and C.

Environments: LabVIEW, WebObjects, Dreamweaver MX, Flash MX, Final Cut Pro HD, Photoshop CS, Illustrator CS, GoLive CS, DVD Studio Pro, OS X Server, InfiniD, Director MX, Douglas CAD/CAM, Adobe Acrobat Professional, Poser, Cinema 4D, Carerra 3D, Nemetschek VectorWorks, Filemaker, Fireworks, PalmOS, Windows, MacOS.

Engineering*:* Electrical engineering, Biomedical instrumentation systems, analog and digital circuit design, DSP, signal analysis, wavelet analysis, acoustics, bioacoustics. Data acquisition systems and hardware, GPIB, RS-232, TCP/IP, UDP/IP, Robotics, Remote Sensing, Remote Instrumentation, RF, VXI, extensive experience with most National Instruments DAQ products.

Internet development:, Web design architecture, HTML, DHTML, XML, CSS, PHP, SQL, CGI, TCP/IP, streaming video/audio, cross-browser compatibility, New Media, functional design, user interface design

Employment History

Moog Aircraft Group: Lead engineer to create motor and motor control interface to test and validate spoiler and horizontal tail actuators for Boeing 787 Dreamliner. Project involved validation of early production parts of motors, creation of closed loop controls in LabVIEW, integration into hydraulic test rigs, verification of test rigs under requirements from Boeing, and hands-on creation of elaborate custom cabling, test hardware and software. Documentation to requirements of Boeing as necessary. LabVIEW, Simulink, Toolkits, FPGA, CAD, Electronic Workbench for schematics, etc. Client: Moog Aircraft Grop, Salt Lake City. Duration 6 montbs.

Sonomax: Lead engineer to create, validate in-ear sound attenuation device. Elaborate custom software/hardware validated device performance, and effectiveness in subject and industrial environment. Project involved software/hardware design to measure baseline of hearing and extent of prior hearing loss from normal aging, environmental causes, or disease. LabVIEW, Application builder, Test Stand, CAD, Electronic WorkBench, Sound & Vibration ToolKit, C, CVI, Client: Sonomax.com. Contract duration 22 months.

Hewlett Packard: Lead engineer final human interface designer handheld scanner w/OC. Software and custom hardware for this project measured behavior and tolerances in pre-

production design trials. LabVIEW, Test Stand, CAD, DLL, C, Serial, 3D motion analysis for kinematics, custom electronic design, embedded system. Contract duration, 5 months, Client: HP.

US Navy: 3D position and metal detection software and hardware for use by the Navy in landmine location and surface integrity studies of ship hulls. The hardware and software for this project made sure a technician scanned a complete area of interest, no missing grid portions, and took measurements of events in each grid to detect for landmines or surface changes. LabVIEW, Application builder, CAD, Electronic WorkBench layout/circuit board software, magnetic and densitometer sensors. Project Contract 4 months Client: Naval Surface Warfare, Bethesda, MD.

VasoMedical: Update their primary product's software for a reverse pressure heart pressure relief device, create medical validation file for peer review, remote access, database connectivity. LabVIEW, C, Advanced custom DAQ, scripting, advanced custom physiology algorithms, TCP/IP. Contract duration 8 months. Client: VasoMedical, vasomedical.com, NASDAQ-VASO.

AeroNav Labs: Vibration study of military equipment, to military specifications. The hardware and software for this project to test novel submarine doors when exposed to high pressures and vibration. LabVIEW, Test Stand, custom test & measurement. LabVIEW, DLL, Advanced DAQ, Database AddOn. Contract duration 9 months. Client: AeroNav, Brooklyn, NY.

Biomechanics Corporation of America: Fatigue and stress test for telephone line installers. The hardware and software for this project allowed testing of telephone line workers, specifically, to determine forces on workers as they descend from telephone poles after a long work session. Biomechanics, materials testing (weight distribution, gate, etc.) Nike. Biomechanics for product development force measurements on new rifles: custom sensors on shoulder, cheek, and trigger finger. LabVIEW, Test bench, DLL, Advanced DAQ, custom analog sensors. Contract duration 9 months, Client: BCA/Nike, Remington.

Götenborg Medical School: software/hardware. Gothenburg, Sweden Motion Analysis Lab. Project involved 3D motion capture and analysis of lower spinal column while in motion. LabVIEW, 3D motion capture/analysis, MatLab. Contract duration 5 months. Client: Götenborg University Medical School, Orthopedics Department, http://www.jru.orthop.gu.se/

University of Michigan: Low Level 3D motion analysis drivers for Ascension Technologies six degrees of freedom MotionStar TCP/IP real-time motion tracker. Development of application software for human motion analysis biomechanics. LabVIEW, Flock of Bird, Advanced DAQ, MatLab, test and measurement, custom electronic design. Contract duration 18 months, Client: University of Michigan, Movement Science Department.

Columbia Medical School: 3D motion analysis laboratory software/hardware. Project involved designing and creating apparatus to measure time, and travel path to target. The hardware and software created for this project tested subjects who picked up a short horizontal rod and placed it a vertical opening of a lit target. LabVIEW, advanced DSP, C, electronic design. Contract duration 6 months. Client: Columbia Medical School, Department of Physical Therapy.

Columbia Medical School: 3D motion analysis laboratory software/hardware. Project involved accuracy and precision reflex studies of patients with Parkinson's. C, LabVIEW, CVI, Mathematica, Validation for scientific peer review, Contract duration 6 months. Client: Columbia Medical Center, NY, Dr. Zach Pine.

National Shopping Centers, David Bermant Foundation: contract engineer for twelve facilities, work involved management of development, installation, and ongoing maintenance of audio/mechanic displays. LabVIEW, CAD, electrical engineering. 1992 -1996

American Craft Museum, The Robot Show: software and hardware engineer 1988 - 1989

ABC/Capital Cities: Video Engineer, summer replacement engineer, operated cameras and

performed video calibration/color camera match, NABET union position. 1981 - 1982

National Institutes of Health: National Institutes of Neurological and Communicable Diseases and Stroke, Lab Technician. Biomedical database, engineering for research, visual programming, Lab Chief, Nobel Laureate, Carleton Gajdusek, Mad Cow Disease. 1979 - 1980

Yale Medical School, Department of Biophysics and Biochemistry: Lab Technician. Lab Chief, Dr. Koningsburg, Blood clotting research, Original Extrinsic blood clotting biochemical pathway determined in this lab 1978-1979

University of Cincinnati Medical Center, LASER Lab: Department of Dermatology, Technician, calibration, validation of power, LASER mechanics. Lab was the first clinical use of LASERs, Director Dr. Leon Goldman, LASER Physics 1972 - 1973

University of Cincinnati Medical Center, Department of Biomedical Communications: Audio Video Engineer, production. 1969 - 1972

Technical Consultation

ABC/Capital Cities, Training with various commercial graphics packages including Adobe Photoshop and Illustrator. Client: Bill Duvall, Director of Graphics

Engineering for Institutions

Boston Museum of Science, Systems engineering work designing hardware and software for exhibits titled: Fish on a Stick, Solar Kiosk, Galileo Drop, http://www.mos.org/

Hall of Science, Queens, NY, Systems engineering work designing hardware and software for exhibits titled: Internet Tug of War, http://www.nyhallsci.org/

Port Authority of NY & NJ, Mechanical engineering contractor for audio/mechanic displays

Teaching

10 year science fair judge NY city wide; Adjunct professor, Teachers College, Columbia University, *Electronics for Researchers*, Movement Science Department; Teacher of after school programs at PS234, hands-on pre-engineering program titled: "*Things That Fly*."

Writing Experience

Columnist for Ziff Davis. Four-year column: Creative Engineering. Column involved innovative technology or technique regardless of platform. Writing provided access to PR and engineers from various software companies.

Lecturing Experience

Technical presentations at various universities, retail stores and conference sites on technical topics such as Unix server setup, LabVIEW, and electronics.

Relevant History

Following the destruction of his Lower Manhattan neighborhood of 24 years this applicant worked extensively with the Coast Guard, FBI, NIST and others to provide important materials for analysis of the 9/11 disaster. Applicant provided a tripod-mounted video of the World Trade Center attack, suitable for detailed for structural analysis. After 9/11 applicant restored technology for area schools displaced by 9/11.

Education

Antioch College, Yellow Springs, OH, BS, 1979. Advanced studies at Yale, Columbia Engineering, Columbia Medical School, and coursework with National Instruments, etc.

University of Cincinnati Cincinnati OH, Honors courses in Geology, English, 1973

Interests

Writing, mountain biking, swimming, model flight and snowboarding