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WORK OBJECTIVE

Software developer with extensive experience designing highly technical software seeks new product development work.

SKILL SUMMARY

Classic and OO Development using C, C++, VB, Delphi, Java
Low-level driver design, code and debug using assembler, C
Bug removal via debuggers, soft and hard ICE, o-scopes and logic analyzers
Real-time tasking using custom, Win32, MTOS, SMX and On-Time RTOSs
Signal processing including input, transport, storage, transform and output
Data communications using RS-232, RS-485, Bitbus and TCP/IP
Database with custom DB engines, Oracle, SQL, ADO and JDBC
GUI design using C++, Delphi, VB, Java Swing, Zinc on MS and non-MS OSs
Full cycle projects from concept thru post production support
Mixed-OS system development with DOS, Win32 (NT, 2K), Unix (Solaris, Linux)
Experienced with classic waterfall and Agile development methodologies
Software validation to FDA and 2167A standards with PCVS, CVS and SourceSafe
Integration of linear and 2D barcode auto-identification technologies
Authoring and delivering presentations at tradeshow and client sites

EMPLOYMENT HISTORY

2005-2007, Software Engineer, Process Solutions Inc

..Software development and customer support of Human Machine Interface and Statistical Process Control software for metal rolling mills; VB, C

2003-2005, Contract Software Development, Technical Consulting

..2003-2005 Polaroid, Xray Spectrometer support; VB, VBA

..2003-2005 Connecticut Law Book, tech support, work flow software, data mining; VB
2004 Lightspace, embedded SW, XML based Playlist; Java, Jbuilder

..2004-2005 Gunther International, embedded SW; Pascal, VB

..2003-2005 Various clients, 2D data matrix barcode workflow; C, COBOL

1999-2003, Research Applications Developer, Pfizer

On a global team, produced GUI and data retrieval SW to view relationships between compounds and screens; Multi-tier, VB6, ADO, SQL, Oracle, XML-RPC

Developed DNA Sequencing Lab Automation app, tool generates scripts for Tecan liquid chemical handler and DNA Sequencer; samples and reagents id'd by video scan of rack holding 96 vials with 2D barcodes; C++, Oracle, CVS, VB

Built API providing linkage between large-scale material-management robot system and R&D database tables; Server-side Java, JDBC, Oracle, CVS, Solaris

Wrote unit tests for Global Compound Management API; validated Java based API for use from C++, VB and VBA applications; Java, VB, VBA, C++, ActiveX bridge

Created demo showing Java running within Oracle to access R&D database tables; Server-side Java, SQL, Oracle

Provided subject matter expertise in the R&D of 2D barcodes for vial ID; assisted vendor's engineering team with design and validation of 2D symbology

Performed trouble shooting and modified vendor code to improve performance of Tecan Weigh Station prior to its acceptance and placement into production

Improved existing automated chemical synthesis systems; C++, Oracle, SQL

Designed app for Compound Enhancement Group's Plate Preparation work, tool generates scripts for Liquid Handler and Mass Spectrometer instruments; Java, XML, SQL, Oracle

Prepared and delivered several presentations on emerging Java Technologies to software developers and scientists

1985-1999, CONTRACT SOFTWARE DEVELOPMENT, various customers

Moore Special Tool, Raytheon, Old Saybrook Press, Chester Cable, Probot, Gunther, Separation Technology, MAN Roland, Daymarc Connecticut Law Book, Communication Systems Technology, MAR Data Retrieval, Polaroid, ACT Worldwide Automation, Chiron Full Spectrum Productions, Novak Engineering Co, Hand Held Products Walt Disney Imagineering, ESPN

Products include:

DLL TEXT_VIEWER; hi-speed Win 3.1 DLL used by Visual Basic electronic document retrieval system, improved speed and rendering quality; C++

PATH OPTIMIZER; solution to "Traveling Salesman" problem using robotic instrument's database, provided 25% speed improvement; VB, C

HAND HELD PDA; VB & Win 3.1 Pen based, digital-imaging system for USCG ship inspections, replaced pencil and paper system; VB, custom DB

DISPLAY PANEL ANIMATION for High Pressure Liquid Chromatography Instrument, a dynamic display allowing operators to quickly determine system status; Pascal

MACHINE TOOL Z-AXIS CONTROLLER; System Control, DB & UI for high-speed high-precision grinder, replaced 1920's pneumatic control system; Pascal

BIOS MODIFICATIONS; EGA graphic card and PC motherboard ROM changes for precision multi-axis coordinate transform and display; Pascal, Assembler

MTOS RT KERNEL SYSTEM SUPPORT; Doppler Weather Radar (NEXRAD), multiple processors, computers, sites; worked performed in a Unix environment to DOD-STD-2167A along with 140 other developers; C, Assembler, Unix, PVCS

INDUSTRIAL LASER PULSE SHAPER; 8085 assembler driver with 0.5 micro-second shape-level resolution, designed original solution to difficult engineering problem to delight of senior engineering management

TIME & ATTENDANCE SYSTEM; system design and code of time-clock nodes, multi-drop net protocol, hub server DB and upload to NCR Payroll Center

BAR CODE COMPONENTS; printing and reading for T&A System, system replaced aging IBM product requiring expensive support; Multi-tier, Pascal, 8085 assembler

PORT of Printed Circuit Board Tester software from DOS/Pascal to UNIX/C

WEB-PAPER HANDLER; restacker of paper stream from high speed Laser Printer

OUTPUT FINISHER; distributed-computer packaging of bar-coded and laser-printed sheets, preprinted documents and envelopes; Ladder-logic, Pascal

PRODUCT UPGRADE; Chromatography Controller, from Single-Task to Multi-Task

WEB OFFSET PRESS; PC based system control, UI & DB; US Data Factory Link, C

INDUSTRIAL LASER CONTROLLER; system control, UI & DB; Zinc, C++, SMX rtos

PROGRAMMABLE DATA SWITCH; UI for hardened, remote box; Zinc, C++ and SMX

HIGH PRESSURE LIQUID CHROMATOGRAPHY INSTRUMENT; provided solution that met FDA validation requirements, system control, UI & DB; Pascal

STRIP CHART RECORDER; interrupt driven, multi-channel real time plot to dot matrix or laser printer during Chromatograph data acquisition; Assembler

INTEGRATED CIRCUIT DEVICE HANDLER; led client conversion from their custom HW & SW system to PC based design using COTS HW&SW, developed tasks for product motion, designed UI & DB; Dos, Zinc, C++ and **SMX** RTOS

OCR DATA ENTRY; system input of legal documents into publisher database

PRODUCT PORT; document display DLL from 16 bit Win 3.1 to 32 bit OS2; C++

XRAY SPECTROMETER; system control, data acquisition, UI & DB, reports, upload to VAX; Win 3.1, VB and Access

PRINTED CIRCUIT BOARD MANUFACTURING EQUIPMENT; UI, DB, RT-control; C and General Software's DOS-6XL RT Kernel

BOARD DESIGN & PROTOTYPE; Opto-Isolation and LS TTL glue logic between PC IO card and machine's 240 volt solenoids

DEVICE SEQUENCER for PCB manufacture, distributed microprocessor control; system of embedded 8051 micros, assembler

VIDEO RECORDER; PC based system integration and debug; DPS Perception board

PORT and ENHANCEMENT; Delphi VCL commercial product from 16 bit to 32 bit

DEVICE DRIVER; data transport via the PCI bus to board holding dynamically reconfigurable array of Lucent ORCA FPGAs; C

CLOCK 'n SCORE; UI and broadcast display panels for International Soccer and NFL games, dynamic graphics seen by millions on cable TV; VB

MAC PORT; document display DLL from Win 3.x to Power Macintosh Shared Library

INTEGRATED CIRCUIT DEVICE HANDLER; product enhancements for handler's UI, DB providing multilevel password security to machine features

PICK AND PLACE ROBOT; trouble shooting and integration of vision component into instrument that makes chips for blood analyzer; VB, C DLLs

DATA MATRIX 2D barcode encoder software for Word97 MailMerge, Access 97, Excel Java, VB and Cobol document printing applications; billions of insurance and financial document pages have been identified by this software

INTEGRATED CIRCUIT TRAY HANDLER; 10 axis servo-stepper motion; RT control via WinNT 4.0; Win DDK, VC++, MFC 4.2, Borland C++ Builder

TCP/IP client/server; portable, radio-linked equipment; Assembler, Delphi

ANIMATION SERVER; sends motion coordinates and actuator signals to large system of animatronic robots and theatrical actuators, receives scene based event data; embedded RTK-32, TCP/IP, PC running without OS, C, Delphi 3.0

DISTRIBUTED CONTROLLER; conversion for legacy multi-node system, Bitbus protocol handler transported via TCP/IP, 8051 simulator for PC-104 board nodes with each node capturing and displaying events in a real time multi-channel 'O-Scope' using the PC-104 board's VGA video memory pages

1983-1985, SENIOR SYSTEMS DEVELOPER AND PROJECT LEADER, Owl Electronics Labs

Managed projects, maintained customer contact, evaluated and selected development equipment and languages, supervised staff, acceptance tested products. Utilized multiple computer types, operating systems, and languages. Supported 1st PC clone (Byte Nov 1982).

Designed and produced these software products:

PROPER; dual-arm ROBOT CONTROLLER for testing printed circuit boards
PHONETTA; finder of PCB nets and adjacencies from Gerber photo-plot data
PDP, CAL25, CAL3, CALCAL; robot diagnostic and calibration utilities
DACOM; data acquisition and display for a Coordinate Measurement Machine
ZYMAL; part definition database and controller for a Laser Dimensioner
ADAMS; UI, DB, incident search & report for a Bacterial-Infection Analyzer
BU; bedside unit for an on-line, networked Patient Information System

1981-1983, MANAGER OF SOFTWARE DEVELOPMENT, Times Fiber Communications

Developed software, managed contractual software development, and built software development staff. Product controlled a network of Fiber-Optic Cable-TV Signal Distribution Hubs.
Created and delivered trade show and on site customer demonstrations.
Supervised and assisted in the creation of the operator interface, subscriber database, database encoder/downloader for system headend.
Developed handheld equipment for use in the field by service technicians.
Wrote program to optimize hub placement by minimizing fiber optic cable requirements given data from cable strand maps.

EDUCATION

University of Rhode Island; Graduate level ROBOTICS course, 1981
University of Rhode Island; NSF sponsored Ocean Engineering Seminar, 1979
Harvard College; BA degree in Engineering and Applied Physics