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CITIZENSHIP: USA

SECURITY CLEARANCE: TS/SCI

EDUCATION:

University of Arizona	Bachelors	Liberal Arts - Faculty of Science (Chemistry & Mathematics)
Cochise College	20 hours	Computer Science
University of California	8 hours	Biology

AWARDS AND RECOGNITION:

Membership	2008	IEEE
Modelling and Simulation Award	2004	DMSO
Outstanding Engineering Award	1995	IEEE
Valedictorian	1979	The Villa High School

MANAGEMENT/PROFESSIONAL TRAINING:

DISTI	2007	1 week	A Practical Guide to HLA Development
Sun Microsystems	1999	3 Days	Multithreaded Applications Programming
Booz-Allen & Hamilton	1998	2 weeks	DII COE Software Engineering
Leading Design	1996	2 weeks	Microsoft Foundation Classes
Computer Sciences Corporation	1995	1 week	Programming in C++
Comptron Data Inc.	1992	2 weeks	SCO UNIX V System Administration
Unisys Corporation	1988	1 week	UNIX Operating System
Unisys Corporation	1988	1 week	Oracle/SQL
Sperry Corporation	1987	1 week	Fundamentals of 'C' Programming
Sperry Corporation	1985	4 weeks	AMME Programming

EMPLOYMENT HISTORY:

10/10 to Present	Tybrin Corporation	Senior Software Engineer
11/07 to 10/10	GaN Corporation	Principal Technologist
5/00 to 11/07	EWA (Formerly Comarco)	Senior Scientific Analyst
2/98 to 5/00	Ilex Systems, Inc.	Engineer V
3/93 to 2/98	Cabaco	Computer Scientist
4/88 to 3/93	Comptron Data, Inc.	Systems Analyst
10/87 to 4/88	Unisys Corporation, TSD	Applications Analyst Associate
9/85 to 10/87	Sperry Corporation, TSD	Senior Programming Aide
5/85 to 4/88	Sierra Vista Community Hospital	Computer Consultant
1/85 to 4/85	Amphitheater Public Schools	District Computer Specialist
1/85 to 2/85	Cross Junior High School	Instructor
12/84 to 4/85	Amphitheater Junior High School	Computer Specialist
7/84 to 7/84	Desert Development Foundation	Computer Consultant

APPLICABLE EXPERIENCE:**10/10 to Present****Senior Software Engineer, TYBRIN Group, a wholly-owned subsidiary of Jacobs Technology Inc., (Sierra Vista, AZ)**

Lead software designer and developer of the Advanced Range Data System's Radio Frequency Network (ARFNET). This PC-based distributed application upgrades capabilities of the existing Edwards Air Force Base & White Sands Missile Range's (WSMR) ARDS airborne GPS tracking system and incorporates modernization elements such as distributed reference receivers for corrections dissemination, Real Time Kinematic (RTK) and interface to small-footprint receivers. Developed software interfaces and data translation algorithms between WSMR range assets such as the Common Range Integrated Instrumentation System – Rapid Prototype Initiative (CRIIS-RPI), Mobile Satellite Radar (MSR) using the Key Length Value (KLV) Common Message Format, ARDS and the Sub-Meter Accurate Range Tracking System (SMARTS).

11/07 to 10/10**Principal Technologist, GaN Corporation - Geeks and Nerds, (Sierra Vista, AZ)**

Senior Technologist providing experienced and knowledgeable technical expertise to support the Real Time Casualty Assessment (RTCA), Geometric Pairing, and Live-Virtual-Constructive (LVC) Integration Management. Supports OTC senior management in the development and implementation of Geometric Pairing principles supporting Army and cross-services training and testing systems. Software architect and development lead for the United States Army (USA) Operational Test Command (OTC) Common Data Link (CDL) software system as well as technical lead for the development of the White Sands Missile Range (WSMR) Simple Translation Acquisition and Routing System (STARS).

5/00 to 11/07**Senior Computer Software Analyst, Electronic Warfare Associates - EWA (Formerly Comarco), (Sierra Vista, AZ)**

Senior Engineer responsible for the Design, development and testing of the Common Data Link (CDL) Controller which allows cross-service platforms to pair geometrically using locally developed Target Selection, Weapon Flyout and Weapons Effect algorithms. The CDL application now consists of over 600,000 lines of code and provides all of the required DIS, TENA and HLA translation, Real-time Casualty Assessment (RTCA) and Terrain Database functions to pair Army, Navy and Air Force native instrumentation systems. The CDL package is currently TENA compliant to the JNTC (JRF/RS'05) Joint Object Model (JOM), HLA-compliant to the MATREX FOM 3.0, and supports DIS versions through version 6.0.

2/98 to 5/00**Engineer V, L3 Communications (Formerly Ilex Systems, Inc.), (Sierra Vista, AZ)**

Development Engineer on the team sporting the All Source Analysis System (ASAS) Reconfigurable Workstation (RWS) Y2K port from SunOS to Solaris 2.6. Developed, implemented and maintained automated transfer (communications) software for use between the RWS and other Army Communications systems. Enhanced and expanded the Mapping capability of the RWS. Developed course material and presented a developer seminar on "C and C++ Debugging Techniques".

3/93 to 2/98**Computer Scientist, Cabaco, (Sierra Vista, AZ)**

Engineering lead for the US Army MFDC data collection and stimulation system development. This CompactPCI Hardware and Microsoft Windows NT-based system replaced the HSLT and provided EPG with a robust LAN and WAN stimulator. Project Leader for the Digitized Army US Message Transfer Format (USMTF) and Variable Message Format (VMF) Message Stimulator (DAUVS) Tactical Appliqué Surrogate and Message Stimulator. This UNIX-based system was used extensively throughout the Tactical Internet Demonstration in preparation for Task Force XXI. Designed and delivered The Army Tactical Command and Control (ATCCS) Network Health System (NHS). This system is currently used by the White Sands Missile Range Electronic Proving Ground (EPG) as a tool in determining the health of the Mobile Subscriber Equipment (MSE) Network for the Test Control Center (TCC) and as an aid in the setup and maintenance of instrumentation used in monitoring the Battlefield Functional Areas (BFACS). Project Leader for the PC Test Item Stimulator Upper Level/Lower Level Protocol (PC-TIS ULP/LLP) Intel 80960 based Industry Standard Architecture (ISA) Universal Communications Module (UCM) rapid prototype.

4/88 to 3/93**Systems Analyst, Comptron Data Inc., (Sierra Vista, AZ)**

Redesigned and directed software development for the Comptron Inventory Control and Point-of-Sale software system. Key technical support person for over 100 customer sites nation-wide. Designed and directed development of the Intel 310-based Army Automated Warehouse System (AAWS) providing the Army's Supply and Services Warehouse with accountability and ordering control for all CONUS operations.

10/87 to 4/88

Applications Analyst Associate, Unisys Corporation, TSD (Sierra Vista, AZ)

Maintained and enhanced software for Army Information Systems Command IBM 4361-based Automated Property Book System (APBS) for 25 army sites world-wide. Instrumental in the design and implementation of an Intel 310-based Army Test Measurement and Diagnostic equipment (TMDE) resource tracking and distribution control system. Completed systems analysis and conversion efforts on microcomputer-based UNISYS project and personnel tracking system. This was converted from dBASE III plus to Clipper.

9/85 to 10/87

Senior Programming Aide, Sperry Corporation, TSD (Sierra Vista, AZ)

Developed and documented the Tracking office automation system for Sperry TSD and other TSD locations. This dBASE III Plus system integrates contract and personnel information for the purpose of financial projections and office data processing requirements. Modified AMME configurations to allow a wider range of Defense communication responsibilities. Developed and implemented Assembler routines in use within the tracking system and other Sperry microcomputer systems throughout the office. Installed and maintained a store and forward communications link between Unisys COR on Fort Huachuca and the Unisys TSD office in Sierra Vista. This system was developed for the transfer of work requests and Unisys progress between the two offices. Developed the message encryption software used on this system.

5/85 to 4/88

President and Chief Computer Consultant for Southwest Solutions

Solved hospital communications problems between Sperry microcomputer and CADO minicomputer. In the process of developing a CADO terminal emulator on the Sperry microcomputer. Designing bid specifications for the purchase of a new management information system for the hospital including software and hardware. designed and implemented a property assets management system as part of a microcomputer-based financial management package. Created an automated medical records database management system for the purpose of statistical analysis and tracking of hospital patient data. Developed microcomputer interfacing software to convert hospital minicomputer-based medical diagnostic data into fixed financial cost data. Designed and marketed Lipid Profile Evaluation Software to be used by Pharmacy Departments nation-wide. This microcomputer-based software evaluates blood data supplied by hospital staff.

1/85 to 4/85

District Computer Specialist, Amphitheater Public Schools

Responsible for software maintenance of the school district's computer systems. The systems included IBM PC's, IBM PC XT's, Commodore business machines, Apple's and the Macintosh, TRS and WANG VS main frame. Diagnosed and corrected district wide software problems including data recovery from damaged diskettes. Assistant analyst of the district's information service (BBS) including system modification in BASIC and machine language. Was instrumental in the development and review of the technical bid specifications for the district's main frame.

1/85 to 2/85

Instructor, Cross Junior High School

Instructed adult education class "BASIC Programming and the Home Computer".

12/84 to 4/85

Computer Specialist, Amphitheater Junior High School

Responsible for software maintenance on all of the school's computer systems. The systems included 16 IBM PC's, 16 IBM Jr's, 1 IBM PC XT (hard disk), 16 Networked Commodore PET's, 1 Commodore 64, 3 Apple 2e's and the Z80 based Hero I Robot. Completely redesigned and implemented the networking software for the Commodore PET's in BASIC and machine language. Installed the IBM PC XT which involved formatting and partitioning of the hard disk and writing a DOS menu system. The menu was password protected to afford limited access to specific files and functions by the user. Selected and evaluated software for use in the classroom and administrative functions. Developed proficiency in many spreadsheet, database, and word processing packages to meet differing student levels. Designed and implemented grading programs for differing levels of teacher aptitude. Developed and instructed a computer workshop for the students and their parents. Programming techniques were taught and students were assisted in the development and debugging of their projects using BASIC, COMAL, LOGO and Assembly language.

COMPUTER PLATFORMS:

YEARS EXPERIENCE (Bold indicates Current):

Army MSE LAN System	7
Commodore & Atari (6502 Based Microcomputer)	5
CompactPCI	1
Contel Tiger-Link Minicomputer	2 Months
Cyber 175, 170/730, 170/825	3
DEC Systems Model 10	2
Hewlett Packard Apollo Series	3
IBM 4361 Mainframe	7 Months
Intel 8086 Based Microcomputer	7
Intel 80286/386/486 Microcomputer	21
Intel nGeneration multi-core Microcomputer	17
Intel 310 System	4 Months
Intel 80960 UCM Board	3 Months
Intermec 9444 Barcode Scanner	4 Months
Intel PXA901 (RIM BlackBerry)	2
Motorola Plexus P-35	1
PC-104/PC-104+	9
Sperry 1100	3 Months
Sperry 3760	3 Months
Sperry 5000/80 Minicomputer	2 Months
Sperry 9400	1
Sun SPARC (& Ultra)	5

SOFTWARE LANGUAGES & APPLICATIONS:

YEARS EXPERIENCE (Bold indicates Current):

6502 Assembly	7
8088/80x86 Assembly	10
80960 Assembly	4
9400 Assembly	2
ADA	1
AMME	2
BASIC	9
Borland Visual C++	5
Client/Server Network Programming (TCP/IP and UDP)	18
COBOL-74 (IBM, RM)	11
COBOL-85 (RM, Microfocus & Acucobol)	5
COMAL	1
GNU "C"	16
High Level Architecture (HLA) through MATREX FOM 4.x	3
IEEE 1394a (FireWire [®] Bus)	2
Intel 80960 "C"	4
Java JDE (thru 4.6)	6
Microcomputer-based CAD Applications	9
Microcomputer-based DBMS Applications	22
Microcomputer-based Spreadsheet Applications	20
Microsoft "C"	14
Microsoft "C#"	1
Microsoft SQL Server	5
Microsoft Visual Basic for Applications & VBScript	3
Microsoft Visual C++ (thru 10.0- .NET)	17
MIL-STD-1278x (DIS)	7
MIL-STD-1553B (Avionics Bus)	3
MIL-STD-6016x (TDL)	2
Oracle (thru version 7)	3
PASCAL	1
Perl (thru version 5)	7
SPSS	3

Test & Training Enabling Architecture (TENA)	4
Unix Shell Script	10
X & Windows-based GUI's and application builders	5
Z80 Assembly	1

OPERATING SYSTEMS:

YEARS EXPERIENCE (Bold indicates Current):

HP/UX	3
IBM VSE/DOS	7 Months
Linux Red Hat (thru 8.0)	3
Microsoft/PC/DR-DOS (thru 6.x)	24
Microsoft Windows (98 thru Windows 7)	24
NOS/RE (CDC)	6 Months
OS/4 (Sperry)	1
Real-time Kernel (RTK)	2
RIM Blackberry MTOS (thru 4.2)	2
SCO XENIX (thru 2.3.4)	7
SCO UNIX (thru 3.2 v4.2)	5
SCO Open Desktop	5
SCO Open Server	3
Solaris (thru 2.7)	3
Sun OS (4.1)	1
UNIX System V (Plexus & Unisys)	6 Months
USX Multi-Task! Kernel	4