

**Gerald E. Morris**  
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**Employment Objective:** To obtain work utilizing skills in Linux/UNIX, C/C++ programming, embedded real-time operating systems (VxWorks), image processing and other skills acquired during my four years at Raytheon Missile systems.

**Computer Skills:**

Operating Systems	MS DOS (~4 yrs.), MS Windows 95,98,NT 4.0, 2000, XP (~7 yrs.), GNU/Linux (~5+ yrs.), Solaris 7/8/9 (~3 yrs.), Mac OS 8.6, 9.x (~4 yrs.), MacOS X/Darwin (~4 yrs.), BSD (non- Mac., touched it) VxWorks 1.x, 2.x (~3.5 yrs.), Irix, HPUX, HP True 64 (nodding acquaintance)
Languages/ Development Env.	C/C++ (~4 yrs.), Tornado IDE (~3 yrs.), Rose Real-time (~2 yrs.), MS Visual Studio (~6 mos.) GNU EMACS/GCC (~5+ yrs.), GNU make, automake, autoconf (~5+ yrs), DEC CCC (2 mos), Sun CC (~2 mos. Only used it when there was no GCC.), Trolltech Qt (smattering), KDevelop (~6 mos.), Orincon RIPPEN(~6 mos.), Java (currently enrolled & love it!)
Processors/ Architectures	Intel/AMD x86, Motorola PPC 603, 75x, 74xx, 8240, MPC 56k, Sun SPARC/ Ultra SPARC, DEC Alpha
Process Standards	ISO 9000, CMM Level 3

**Other Skills:** Strong mathematical skills (linear algebra, PDEs, ODEs, Fourier & Laplace operations etc...), solid grounding in electromagnetics, some IR/microwave spectroscopy, charged particle/plasma theory, physics, vacuum technology, cryogenics, strong communication skills (no stranger to PowerPoint either)

**Education:** The University of Arizona, BS Electrical Engineering, May 1999, GPA 3.2, Pima Community College, 1988- 94.

**Professional Experience**

<b>Employer</b>	<b>Computer Task Group/IBM</b>
<b>address</b>	5055 E Broadway, Suite C214, Tucson, AZ 85711- 3640
<b>Supervisors</b>	Larry Comstock (CTG), John Walkovich (IBM)
<b>from</b>	01/18/05
<b>to</b>	present
<b>Experience</b>	Contracting as Test Engineer to IBM Storage Facility in Tucson. Testing Linux- PPC based DS6000 unit for IBM on Windows, Linux, AIX, Solaris, HPUX hosts.

<b>Employer</b>	<b>EtQ Inc. Technical Services</b>
<b>address</b>	655 N. Alvernon Way, Suite 209, Tucson, AZ 85711
<b>Supervisor</b>	Mahmoud Noubani, <a href="mailto:mnoubani@etq.com">mnoubani@etq.com</a>
<b>from</b>	09/22/03
<b>to</b>	10/29/04
<b>Experience</b>	Providing technical support for Lotus Notes based workflow databases. Some Linux system administration.

<b>Employer</b>	<b>Raytheon Missile Systems</b>
<b>address</b>	1151 E. Hermans Road, Tucson, AZ 85706
<b>Supervisors</b>	Andrew Vandivort (team lead) 545- 9637, <a href="mailto:amvandivort@raytheon.com">amvandivort@raytheon.com</a>
	Steven Wagner (Dept Manager, Image Processing/ EO Center) 794- 3807, <a href="mailto:srwagner@raytheon.com">srwagner@raytheon.com</a>
<b>from</b>	06/01/99
<b>to</b>	04/24/03
<b>Experience</b>	<p><b>IR&amp;D on Vector Signal Image Processing Library (VSIPL)</b> testing and benchmarking VSIPL on x86, SPARC 20 and PPC 603 processors running Linux, Sun OS and VxWorks 1.0.1 (4 mos.) for further information contact Steve Wagner (<a href="mailto:srwagner@raytheon.com">srwagner@raytheon.com</a> )</p> <p><b>Debugging Image and Target Acquisition Algorithm for LADAR guided Small smart bomb (DASSL)</b> with Orincon RIPPEN 3.x on SPARC/Solaris 6 PPC/VxWorks 2.0 (3 mos.), for further information contact Tay Perona (<a href="mailto:melissa_t_perona@raytheon.com">melissa_t_perona@raytheon.com</a>)</p> <p><b>JSOW</b> Porting DEC CCC algorithms to GCC on Alpha 21164 Linux (Debian) and VxWorks 5.2 (~2 mos, concurrent w. DASSL)</p> <p><b>Common Computer Program/Standard Missile Block IIIB</b> Further debugging, benchmarking with RIPPEN (4 mos) recognized for aptitude with VxWorks, became SWES administrator for Cetia VMPC 4a, DY4 CHAMP Targets running VxWorks 2.0 on Solaris 6 host (10 mos) developed stable VxWorks kernels for targets, became informal in- lab sysadmin on 10 UltraSPARC 10 machines running Solaris 7 (Note: this persisted even after the lab was Classified. I was technically not allowed to touch the machines so I sat behind those with Secret Clearance and told them what to type.) implemented signal processing algorithm from white paper for porting incoming signal from RF sensor plate to Motorola 56k processor running hardware FFT/ R-&gt;P conversions to software implementation of the same for PPC 75x/74xx in C under VxWorks 2.0. Note that I was the only person out of a team of approximately 30 members to take an algorithm completely from white paper to target deployment on the Common Computer Program. The code ran to complete satisfaction when the Navy descopeed the program. For further information contact Troy Gangwer (<a href="mailto:tagangwer@raytheon.com">tagangwer@raytheon.com</a>)</p> <p><b>Standard Missile Independent Processing Program (SMIP)</b> Software Testing Motorola 56k Assembly (3 mos) for further information contact Troy Gangwer (<a href="mailto:tagangwer@raytheon.com">tagangwer@raytheon.com</a>)</p>

<b>Employer</b>	<b>Raytheon Missile Systems</b>
<b>Experience</b>	<p><b>Missile Advanced Processing Software (MAPS) IR&amp;D</b> Inherited SWES from Common Computer and continued to improve VxWorks kernel, Board Support Package for DY4 CHAMP VME targets. Began middleware development in C++ with Rational Rose Real-time. Was made sysadmin for all UNIX (Linux, Solaris, Mac OS X, Irix) machines in Image Processing Lab (Unclassified) Developed shared memory interprocessing communication for CHAMP architecture in VxWorks 2.0, took ATR algorithm from white paper to C/C++ implementation to complete satisfaction of customer, (it matched the MATLAB baseline) Algorithm was then ported into Rose Realtime by myself and others. Task completed under time and budget. Implemented UDP/IPcommunications between middleware in Rose Real-time on Windows NT 4.0 to US Army's Common Simulation Framework (CSF) on RedHat Linux 7.3/ Mandrake Linux 9.0 on x86 machines.</p> <p><i>Note: this task was completed in about 2.5 months after senior engineers had spent about 10 struggling with the concept. (2.5 yrs) for further information contact Andrew Vandivort (<a href="mailto:amvandivort@raytheon.com">amvandivort@raytheon.com</a>) and Dr. Michael DaBose.</i></p> <p><b>PIOS Program.</b> Setting up and benchmarking CSPI quad PPC VME targets over custom CSPI/Myrinet interface to Dual 7400 MacIntosh hosts running customized Black Lab Linux on both target and host. (3 mos.) for further information contact William S Johnston and Steven R. Wagner.</p>
<b>Activities &amp; Honors</b>	Vice president of Raytheon Linux Users Group. Member of YESnet. RMS Excellence in Technology Award 2001, co-authored <u>Software Portability, Interoperability and Reuse: A Middleware Approach</u> , 2002

<b>Employer</b>	<b>Miracle Tutoring</b>
<b>address</b>	123 W 4 <sup>th</sup> st., Tucson, AZ 85705
<b>Supervisor</b>	myself
<b>from</b>	01/30/91
<b>to</b>	06/01/99
<b>Experience</b>	Proprietor and main tutor of Miracle Tutoring. Private tutor for students ranging in ages from junior high school through graduate school. Focus on mathematics, physics, chemistry, basic computer skills
<b>Activities &amp; Honors</b>	Attending class at the University of Arizona

<b>Employer</b>	<b>University of Arizona</b>
<b>address</b>	The University of Arizona, 85721
<b>Supervisor</b>	Dr. Stephen Kukulich, 621- 2969, Old Chem 316
<b>from</b>	05/25/97
<b>to</b>	08/20/97

<b>Employer</b>	<b>University of Arizona</b>
<b>Experience</b>	Work in microwave spectroscopy, first exposure to vacuum technology, troubleshooting and renovating various electronic devices which were employed in taking microwave spectra. A good introduction to quantum mechanics in practice.

<b>Employer</b>	<b>NSF/Research Corp/PCC/University of Arizona Summer Bridge</b>
<b>address</b>	The University of Arizona, 85721
<b>Supervisor</b>	Dr. Stephen Kukulich, 621- 2969, Old Chem 316
<b>from</b>	05/25/94, 95
<b>to</b>	08/20/94, 95
<b>Experience</b>	Identical to the aforementioned. Co-funded by the NSF and Research Corporation in the PCC Summer Bridge Program. Awarded to students of superior skill and interest in sciences.

<b>Employer</b>	<b>NASA Space Grant/ University of Arizona</b>
<b>address</b>	The University of Arizona, 85721
<b>Supervisor (s)</b>	Dr. George H. Rieke, 621- 2832, Steward Observatory #264, Dr. Marcia Rieke, 621- 2731, Steward Observatory #262
<b>from</b>	Sep. 1993
<b>to</b>	May 1994
<b>Experience</b>	The NASA Space Grant funded this internship for a select few PCC students in addition to U. of A. students. Worked on renovation of a near IR germanium spectrometer, including the data acquisition, control circuits and the optical system.

### Personal References

<b>Name</b>	Kenneth G. Morse
<b>address</b>	2508 E 23 St , Tucson AZ 85713
<b>Phone number</b>	(520) 881- 4910
<b>email</b>	<a href="mailto:kmorse8@cox.net">kmorse8@cox.net</a>
<b>Years known</b>	8

<b>Name</b>	Robert Hendrickson
<b>address</b>	5001 W. Camino de Girasol, Tucson, AZ 85745
<b>Phone number</b>	(520) 293- 5306 (home)
<b>email</b>	<a href="mailto:lomlgh@cox.net">lomlgh@cox.net</a>
<b>Years known</b>	9

<b>Name</b>	Robert Contreras
<b>address</b>	3755 N Campbell Ave #48

<b>Name</b>	Robert Contreras	
<b>Phone num(s)</b>	(home) (520)204- 1768, (520) 358- 3143 (cellular),	
<b>email</b>	<a href="mailto:rmcontreras@cox.net">rmcontreras@cox.net</a>	
<b>Years known</b>		12

### Professional References

<b>Name</b>	Patrick Dunne	
<b>qualifications</b>	Software Engineering major, Embry Riddle College, E-2, Raytheon Missile Systems, numerous programs	
<b>address</b>	8250 E. Golf Links Rd. #43, Tucson, AZ 85730- 1235	
<b>Phone num(s)</b>	<b>(520) 991- 9511(home), (520) 794- 3007 (work)</b>	
<b>email</b>	<a href="mailto:dunnep1@cox.net">dunnep1@cox.net</a>	
<b>Years known</b>		5

<b>Name</b>	Garrett J. Wright	
<b>qualifications</b>	Software Engineering major, Embry Riddle College, E-2, Raytheon Missile Systems, numerous programs, awards	
<b>address</b>	6648 S Hard Rock Way, Tucson, AZ 85746	
<b>Phone num(s)</b>	(520) 884- 5502 (home), (520) 545- 9664 (work)	
<b>email</b>	<a href="mailto:everkorn311@yahoo.com">everkorn311@yahoo.com</a>	
<b>Years known</b>		2

<b>Name</b>	W. Scott Johnston	
<b>qualifications</b>	PIOS II Program Manager	
<b>address</b>	Raytheon Missile Systems 1151 E Hermans Rd. P.O. Box 11337 Tucson, AZ 85734	
<b>Phone num(s)</b>	(520) 545- 9444 (voice), (520) 247- 3713 (global mobile)	
<b>email</b>	<a href="mailto:wsjohnston@raytheon.com">wsjohnston@raytheon.com</a>	
<b>Years known</b>		1.33

<b>Name</b>	William F Severance	
<b>qualifications</b>	EKV Chief Engineer, EO Subsystems, Image Processing	
<b>address</b>	Raytheon Missile Systems 1151 E Hermans Rd. P.O. Box 11337 Tucson, AZ 85734	
<b>Phone num(s)</b>	(520) 794- 9990 (office), (520) 271- 4775	
<b>email</b>	<a href="mailto:wfseverance@raytheon.com">wfseverance@raytheon.com</a>	
<b>Years known</b>		4

