GAVIN HURLBUT

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TRAINING AND SKILLS

- Proficient with UNIX (esp. Linux and Solaris), Windows, Ada, C, HTML
- Proficient in C and Assembly Language programming for 680x0, ix86, PowerPC, MC68HC11, Microchip PIC, Atmel AVR
- Proficient in UNIX shell scripting (predominantly Bourne Shell, Perl, Ruby and GNU Awk)
- Possess hardware and operating knowledge of: IBM PC compatibles, Apple Macintosh, Sun Workstations
- Experienced with TCP/IP and Microsoft SMB networking
- Accustomed to revision control and project management procedures and software
- Adapt easily to various working conditions
- Hard working and willing to work long hours

WORK EXPERIENCE

INFOTECH AEROSPACE SERVICES, ISABELA, PUERTO RICO
Software Specialist II, June 2008 to Present

- Performed verification of commercial jet engine control software
- Wrote software specifications for commercial jet engine control software
- Implemented control systems designs using Matlab/Simulink, including unit testing
- Performed code reads of military jet engine control software
- Mentored and trained coworkers on the use of Subversion (SVN) revision control system

BEIRDO CONSULTING, TORONTO, ONTARIO, CANADA
Owner, March 2002 to April 2006

- *UNIX Administration - on contract to MCI Canada (October 2003 – April 2006)*
  - Created a custom DNS provisioning system for customer DNS services (bash scripts)
  - Coordinated migrating production DNS services to new BIND9 servers
  - Organized the renaming of 100 UNIX servers due to corporate renaming
  - Deployed cfengine to maintain various Solaris server configurations
- *Software Designer - on contract to Fidus Systems (October 2002)*
  - Designed a testing system for a custom wireless protocol running at gigabit speeds
- *UNIX Administration - on contract to WorldCom Canada (March 2002 - August 2002)*
  - Assisted in automation of Solaris 8 installation on Sun Microsystems machines
  - Created Solaris packages of many software packages to increase maintainability
  - Rebuilt Apache, OpenSSH and other packages in response to security advisories
  - Assisted in day-to-day user problem solving
  - Created administrative shell scripts (Perl and Bourne-shell)

FIDUS SYSTEMS, OTTAWA, ONTARIO, CANADA
Software Designer, November 2002 to July 2003

- Designed and implemented a testing system for a custom wireless protocol running at gigabit speeds
- Wrote multi-threaded Linux software to test latencies over gigabit Ethernet running custom protocols
- Organized a small IT group to maintain Linux and Windows 2000 servers in a small company environment

TALITY CANADA, OTTAWA, ONTARIO, CANADA
CADENCE DESIGN SYSTEMS (DIVISION SPUN OFF AS TALITY CANADA, JULY 2000)
WESTPORT TECHNOLOGIES (ACQUIRED BY CADENCE DESIGN SYSTEMS, MARCH 2000)
Firmware Designer, July 1998 to February 2002

- *On contract to Zarlink Semiconductors (September 2001 - October 2001)*
  - Coded in C and PowerPC assembly for an MPC860-based VxWorks system
  - Created low-level drivers and diagnostics code for use on an evaluation board for a Zarlink IMA16 device
  - Adapted an open-source file compression algorithm for use in a memory-based system
- *On contract to Ahead Communication Systems (March 2001 - December 2001)*
  - Coded in C for an OSE-Epsilon based embedded system running on an Infineon C165H processor
  - Designed and implemented firmware for a 16-line E1 interface card
  - Worked closely with hardware designers to debug the card in a test environment
- *On contract to C-Speed Corporation (July 2000 - October 2000)*
  - Coded in C for a PowerPC-based VxWorks system
  - Wrote device drivers for a National Instruments A/D converter board
  - Assisted in writing calibration routines for a MEMS optical switch
  - Prepared a test system for display at a trade show
- *Internal development project (April 1999 - June 2000)*
  - Firmware development for a multi-line ADSL Line Card (MPC8260 with VxWorks)
  - Completed testing the ADSL Line Card using a single ADSL modem and a lab setup including a Cisco router.
  - Evaluated several IP over ATM protocols
  - Wrote various low-level drivers and diagnostics code
- Assisting with network administration tasks
- *On contract to DRS Flight Safety & Communications (November 1998 - April 1999)*
  - Coded in Ada, C and PowerPC assembly for a VxWorks-based embedded system (MPC860)
  - Designed, implemented and tested an HDLC-based data link over a custom TDM
  - Designed several audio diagnostics tools to assist in testing several interface modules
  - Performed audio tests on several radio and phone-line interface modules prior to delivery
  - Created a central timer task to vastly reduce the complexity of the running system
- *On contract to Nortel Networks - XACORE OC-3 Firmware Group (July 1998 - November 1998)*
  - Coded in C for an Intel i960 processor (custom operating system)
  - Implemented fault detection and indication module for an OC-3 based peripheral card
  - Added interrupt handlers to support error detection without polling loops
  - Updated documentation to include the new error handling features

PRIOR DATA SCIENCES, KANATA, ONTARIO, CANADA
Junior Software Engineer, May 1997 to July 1998

- *On contract to DRS Flight Safety & Communications*
  - Coded in Ada, C and PowerPC assembly for a VxWorks-based embedded system (MPC860)
  - Designed and implemented several low-level drivers (serial ports, on-board device bootstraps)
  - Created a sidetone suppression algorithm in a PBX-to-land-line interface
  - Designed maintenance consoles for several PBX interface modules
  - Worked closely with Hardware Engineers to debug several circuit boards
  - Designed and implemented diagnostics features and self-test routines

RESEARCH IN MOTION, WATERLOO, ONTARIO, CANADA
Embedded Firmware Designer, December 1995 to April 1996,
September 1996 to December 1996

- Designed several diagnostics applications for two-way pagers (i386-based)
- Performed final "on-the-air" testing of two-way pager units
- Established testing procedures to be used in production line
- Created and implemented an automatic source code documentation cross-referencing system
- Generated test scripts to ensure proper operation of an RF protocol and a serial protocol
- Designed and implemented a FLASH ROM-based file system
- Implemented a custom serial protocol within a radio modem
- Coordinated with several managers and departments
- Worked to exacting deadlines

SILCOM RESEARCH LIMITED, KANATA, ONTARIO, CANADA
Hardware/Software Designer, January 1994 to April 1994,
September 1994 to December 1994,
May 1995 to August 1995

- Prototyped, built and tested digital test equipment (MC68HC11 assembly)
  - Implemented a design from concept definition
  - Worked independently with minimal supervision
- Aided in maintenance of PC compatibles
- Aided in the design and implementation of a user interface for an alphanumeric pager
  - Created alphanumeric pager demonstration using Visual Basic
  - Wrote and debugged assembly code on MC68HC11 evaluation system
  - Worked independently and for long hours

EMHISER RESEARCH LIMITED, PARRY SOUND, ONTARIO, CANADA
Printed Circuit Board Assembler, May 1993 to August 1993

- Constructed transmitter and receiver sub-assemblies
- Hand-soldered surface mount devices
- Assisted in testing of transmitter and receivers
- Worked in a small company, high pressure atmosphere

EDUCATION

UNIVERSITY OF WATERLOO
Bachelors of Applied Science in Electrical Engineering, 1997

INTERESTS

- Computer Networking, Vocal Music, Auto Racing
- Great independent interest in small electronics projects and embedded microcontroller applications
- Enjoy working on open-source software projects

REFERENCES

- Available upon request