

# Kevin Cummings

20 Briarwood Road ♦ Framingham, MA 01701 ♦ Phone: (508) 872-3164  
[cummings@kjchome.homeip.net](mailto:cummings@kjchome.homeip.net)

---

## **QUALIFICATIONS - PR. SOFTWARE ENGINEER/SYSTEMS ANALYST IN IT INDUSTRY**

*"A Rare Find: True systems software engineer with problem solving skills"*

Accomplished Software Engineer with Hardware experience and over 20 years of expertise in all phases of the Software Development. A detail oriented, self motivated IT Professional who has a successful track record for managing projects from inception through completion including scheduling, program design, implementation, cross department coordination, and testing while using technology efficiently to meet the cost saving/reduction goals of the organization. Has experience leading and motivating winning development teams on projects across multiple systems platforms. Analytical thinker and team player possessing strong problem solving skills with the ability to identify and translate business requirements into an effective IT solution.

### QUALIFICATIONS SUMMARY

- Comprehensive experience and knowledge of code troubleshooting, debugging, and development
- Expert in a vast array of software languages, operating systems and application packages
- Hands-on experience with multitude of software and hardware technologies and architectures
- Self-starter, works well independently and/or as a team player
- Solid management and technical skills, demonstrated proficiency in leading and mentoring individuals to maximize levels of productivity, while creating highly efficient team environments

### SKILLS

**Operating Systems:** Fedora Linux, Solaris, AIX, HP/UX, PRIMOS, VOS, Windows, DOS

**Languages:** C, C++, PL/1, FORTRAN, Modula-2, PASCAL, perl, python, BASIC, COBOL, awk, HTML, PHP, JAVA, ALGOL, Unix Shells, LISP, SNOBOL, XML

**Software Tools:** Office, ANTLR, YACC/Lex, Bison/flex, Deremer, RCS, SCCS, subversion, Eclipse, Make

**Hardware Platforms:** PCs, Prime, Stratus, Sun, HP, IBM, MIPs, Raytheon

### SPECIALTIES

- |  |   |
|--|---|
| <input type="checkbox"/> Parsers/Lexers        | <input type="checkbox"/> Maintenance Releases |
| <input type="checkbox"/> Compiler Writing      | <input type="checkbox"/> Testing              |
| <input type="checkbox"/> System Configuration  | <input type="checkbox"/> Debugging            |
| <input type="checkbox"/> Analysis              | <input type="checkbox"/> Project Management   |
| <input type="checkbox"/> Project Leadership    | <input type="checkbox"/> Programming          |
| <input type="checkbox"/> Real-time Programming | <input type="checkbox"/> Embedded Programming |

## **PROFESSIONAL EXPERIENCE**

**Radio Mobile Access, Inc.**, North Andover, MA

Apr - Jul. 2012

*Responsibilities:*

*Software Development*

❖ **Independent Contractor**

- *Provided an example ANTLR grammar with support for required tokens.*
- *Provided some example extended C++ classes for restricted INTEGER types.*
- *Provided a number of predefined token types consistent with a wireless networking interface.*
- *interfaced with the BSD editLine library and provided tab completion and ? Help support.*
- *Added command line history support.*

**The Fabric Place Basement,** Natick, MA

Aug - Oct. 2011

*Responsibilities:*

*PC installations*

❖ **Independent Contractor**

*Installation of Windows software on refurbished PCs for printers/cash registers*

- Complete system re-installations including all 3<sup>rd</sup> party software to make the systems work with the hardware.
- Assisted with purchasing of labeling software for printers to print out price labels on special stock.

**Rapid Realm Technologies,** Hopkinton, MA

Feb. - Oct. 2006

*Responsibilities:*

*Software Development*

❖ **Independent Contractor**

*Ported existing grammars from Visual-Parse++ to ANTLR.*

- Re-wrote 4 LALR(1) grammars to LL(k) for ANTLR v2 using Visual C++.
- Made necessary changes for the existing tool to use the new parsers.

**The Fabric Place,** Framingham, MA

Feb. - APR. 2003

*Responsibilities:*

*Database maintenance*

❖ **Independent Contractor**

*Cleaned-up Richter database*

- Updated the inventory of the entire Yarn Department in the company database
- Showed the employees more current techniques which increased their productivity in data-entry
- Helped the new Yarn buyer get started.
- Helped the IT staff keep the department PC software up-to-date.

**EMC Corporation/Data General Corporation**, Southborough, MA Feb. 1999 - Oct. 2001

*Responsibilities:*

*Firmware maintenance*

❖ **Principal Software Engineer**

*Maintained Clariion Storage Array firmware on AMD and PPC platforms*

- Contributed to product release testing cycle for Flare on FC5200 disk array
- Trained in Microsoft NT internals in order to maintain newest firmware
- Provided 24/7 on-call level 2 technical support to customer service
- Helped start a Linux Users Group for EMC employees
- Specified PC specs in order to replace aging Windows-NT PCs with newer Linux workstations
- Used VMWare installations on Linux workstations for legacy Windows apps

**Peritus Software Services**, Westborough, MA

Jan. 1994 – Dec. 1998

*Responsibilities:*

*General software maintenance & Y2K tool development*

❖ **Principal Software Engineer (1996-1998)**

*Developed PL/1 compiler frontend for Y2K tool.*

- Designed and developed tools used to identify, isolate and resolve Y2K problems using ANTLR v1 on Solaris/Linux/AIX/Windows-NT using GCC.
- Implemented a PL/1 source file corrector to automatically make changes from Y2K tool.
- Negotiated project schedules, wrote project plans, and wrote test plans
- OEM Customer Support

❖ **Software Maintenance Engineer (1994-1995)**

*Part of Stratus/VOS maintenance team to fix customer bug reports on an outsource basis.*

- Independently resolved software issues entailing screen editor, print spooler, async software/firmware support, VOS command line interface software, asynchronous virtual terminal device driver support as well as numerous other products requiring specialized expertise
- Pioneered "Work from Home" networking using X-Terminals/PCs and 9600 baud modems
- Responsible for all Prime Computer Translator software product maintenance

**Prime Computer, Inc.**, Framingham, MA

Jun. 1978 – Dec. 1993

*Responsibilities:*

*Multiple project leadership roles and individual contributor*

❖ **Principal Software Engineer (1983-1994)**

- Recruited to participate in PRIMOS to UNIX customer migration team
- Managed projects from inception through completion including scheduling, designating tasks and supervising up to 6 member teams
- Appointed Lead Programmer to participate in design and implementation of Prime's Modula-2 compiler including optimizations and code generation

- Department wide installation, configuration and administration of Sun Workstations
- Coded enhancements to systems as needed
- Responsible for all Prime Translator software and internal tools after layoffs

❖ **Senior Software Engineer (1981-1983)**

- Project Leader for Prime's SPL compiler (System Programming Language)
- Provided on-site support to Alpha Test customer for Prime's ANSI PL/1 compiler.
- Participated in new shared library design for Translator Group
- Identified, defined and documented business requirements, including translating business requirements into conceptual technical requirements both hardware and software, including writing project schedules, project plans, and test plans.
- Coded enhancements to systems as needed
- Maintained LL parsing tools and object concordance dumper

❖ **Software Engineer (1978-1981)**

*Achieved expert status in assembler and hardware architectures*

- Maintained/debugged multiple program loaders
- Added support for the new High Level Language Debugger (DBG) to loaders
- Rewrote assembly code to PL/P
- Maintained several binary tools and integrated FORMS package
- Debugged initial implementation of the Forms Screens Editor (FED)
- Maintained FORMS terminal device drivers for Prime's runtime libraries
- Contributed to design and lead the implementation of new program linker
- Provided on-site support for Beta Test customer of new runfiles.

## **EDUCATION AND TRAINING**

**BS COMPUTER SCIENCE:** Rensselaer Polytechnic Institute

**Training:** FUDcon 1 - Fedora Users and Developers Conference 2005

**Interest/Hobbies:** Volleyball, Open Source Code Testing, Computers

**References:** Available upon request

## **ACCOMPLISHMENTS:**

*As Principal Software Engineer: **Team Member*** participating in Development Verification and Test (DVT) cycle for new Disk Array Hardware to ensure that the new firmware had no regressions.

*As Principal Software Engineer: **Designed and developed*** a PL/I compiler that produced Peritus Intermediate Language (PIL) to be used by various other Peritus tools, primarily the Mass Change Engine (MCE), which Peritus was using to renovate customer source code in order to solve the "Year 2000 Problem" (Y2K).

*As Principal Software Engineer: **Designed and developed*** a PL/I Source File Corrector for use by the MCE project in order for the MCE to apply its necessary Y2K changes automatically to the source code as a part of the automated Y2K renovation. All lexing and parsing was done using the Purdue Compiler Construction Tool Set (PCCTS) and all coding was done using the GNU C Compiler (GCC). All programs were built to run on SunOS, Solaris, AIX, Linux, and later Windows-NT.

*As Principal Software Engineer: **Team Member*** (Part of a 4 person *Technical Team*) responsible for identifying the proper Prime to Unix pathways for selected customers, including specifying both the required hardware and software in order to port the user's requirements from Prime Computers to Unix machines. Target machines included SUN (Solaris), HP (HP-UX), and IBM (AIX).

*As Principal Software Engineer: **Team Member*** assigned to the Operating Systems and CPU Development groups as part of a "*Tiger Team*" to participate in a new multi-CPU design (8 way processors) and to make changes to PRIMOS prior to new hardware availability, including all PRIMOS code executed during system startup.

*As Principal Software Engineer: **Team Member*** participated in the Prime 2250 and 2350 Systems testing effort to ensure that **all** Translator Software ran correctly on the new CPUs, primarily pointing out test failures to the CPU group which indicated CPU firmware bugs found before First Customer Shipments.

*As Principal Software Engineer: **Lead Programmer*** involved with designing and implementing Prime's Modula-2 compiler. The work on this compiler included writing a FE grammar and semantic processing phases that were used with Prime's Common Backend optimizers/code generators for their compilers. Used Prime's LALR(1) parser generator (Deremer).

*As Senior Software Engineer: **Project Leader*** responsible for porting and refining Prime's PL/I G compiler for use as their primary Systems Programming Language (SPL), including enhancing it with new language features to optimize hardware use, including changes to SPL's grammar, semantics, optimizations, and code generation. Parsing and tree walking was done with TSI's LL parsing tools..

*As Software Engineer: **Project Leader*** responsible for re-writing Prime's linking loader to generate files in the new Executable Program Format (EPF) making use of the new Virtual Memory File Access (VMFA) support being added to PRIMOS.