Craig Ludington
2446 N. Albany Avenue
Chicago, Illinois 60647
(773) 627-2020
craig.ludington@rimpoche.chi.il.us

Systems, applications, and network programming on a variety of platforms. Strong Unix, C++, C, and Common Lisp background. Excellent analytical and design skills. Experienced in all phases of software development life-cycle.

Qualifications

Unix (Solaris, Sys V, HP-UX, OSF1, SunOS, Linux, BSDI), OS/2, DOS C++, C, Common Lisp, SQL, TCL/TK, Lex, Yacc, Awk, Korn & Bourne shells, Perl, Bash, Python DEC Alpha, HP 9000 Model 800/700/400, Sun, Intel 80x86, AT&T 3B Series, AS/400

Experience

---

onShore Development
Chicago Illinois
June 2002 —
March 2007

Developed WebCheckout, a web-based resource scheduling and inventory management application written in Common Lisp. The application, first developed for the School of the Art Institute, is now deployed at almost a hundred universities, including some of the better known film schools in the country. I was hired to integrate WebCheckout with the University of Southern California's CinApps application, providing for an exchange of scheduling and financial data between the two applications. After completing that task, I was hired on as a developer, maintaining and adding new features to the application. Responsibilities encompassed daily contact with clients, programming in Common Lisp, Java, and Unix shell, design, coding and testing. In 2006 I was promoted to director of technology services, managing the development and technical support staff. My first goal was to stabilize the product. This was achieved by careful configuration management, a feature-based release cycle, and adding a full-time software tester. Within six months, our customers were actually eager to accept new software releases, something which they'd actively resisted in the past.

ABN Amro
Chicago Illinois
December 1999 —
December 2001

Completed multiple projects during a contract that lasted over 24 months. Two projects were ports of C++ software (one porting to a different class library, another porting from a C-Front based compiler to an Ansi C++ compiler). Another project involved architecting and data modelling for a system for pricing a set of idealized representative trades daily and presenting web reports to the financial analysts. Another project required extensive Korn shell scripting, integrating third-party tools and a Sybase database. Most of the software was written using a mixed-language paradigm, with a combination of C++, TCL, Java, Perl, Python and Orbix CORBA.

CCC Information Services Inc.
Chicago Illinois
July 1999 —
November 1999

Developed internet applications for a company providing information services to the automobile insurance industry. The development environment consisted of a combination of C++ and Perl programming with Sybase and RedBrick database servers on a heterogeneous network of Unix, NT, and mainframe computers, using MQ Series middleware.

ABN Amro
Chicago Illinois
March 1999 —

figured and installed a high availability Unix server using the Linux operating system with Raid-5. Enhanced and debugged Freetds (an open source implementation of the proprietary TDS protocol) to enable database connectivity between the Mysql database on Unix and the SQL Server database on Windows NT.

WebPromote Inc.
Vernon Hills Illinois
October 1998 —
March 1999

Designed and implemented a mail agent capable of processing mailing lists stored in an Oracle database. The agent, running as a daemon, handles requests for processing bulk mail lists, and concurrently speaks SMTP to multiple hosts running sendmail. Each conversation is represented by a discrete finite state machine. Wrote various CGI programs in Perl, using DBD::Oracle for database connectivity.

First Chicago Bank
Chicago Illinois
March 1998 —
September 1998

Converted a Btrieve database used on a MS-DOS platform to an Oracle relational database on Solaris. The code was written in C++ and SQL. Created a network communications library for transferring structured data between MS-DOS and Solaris platforms using sockets and TCP/IP. The library was used for updating an Oracle database with data received over a serial connection to the MS-DOS machines.

OnShore Consulting
Chicago Illinois
February 1998 —
March 1998

Developed a web security administration system for Motorola. A set of CGI scripts generated HTML forms that allowed administrators to manage document control by user and group. Each user belonged to one or more groups, and the CGI scripts enabled: Creating, deleting or modifying entries in the user password file. Creating, deleting or modifying entries in the group file. Creating document categories that specified access by group. The result was that a set of documents could be searched or browsed over the web with granular control over who could see which documents. The code was developed in Perl.

Open Port Technology Inc.
Chicago Illinois
January 1997 —
October 1997

Developed an award-winning internet fax system for UUNET Technologies, Inc. The system delivers single-destination or broadcast faxes over a combination of TCP/IP and public switched telephone networks using least-cost-routing. Faxes originate at a fax machine or desktop computer and are delivered to fax machines or electronic mailboxes. The system architecture is intensely distributed, using sockets for inter-process communication. Responsibilities encompassed the design and implementation of library code including: A multiplexing library for servicing concurrent sockets connections reliably. A library for type-safe status messaging. — tree-structured storage based on the Unix file system.

Blue Cross Blue Shield of Illinois
Chicago Illinois
August 1996 —
January 1997

Designed and implemented an Electronic Data Interchange system for Sun Solaris. The system receives ANSI ASC X12 and other files over a serial connection, and routes them to the appropriate MVS processing system. The files are parsed, tokenized, and stored in an Oracle database so that some data validation can be performed before transferring them to a mainframe for processing as health insurance claims. Responses from the mainframe are stored and forwarded to the appropriate health care provider. The system was written in SQL and Perl. A user interface for the use of the support staff was written in standard HTML.

Wrote a database conversion program in C++. This program parsed undocumented internal data files of the SPS™ database, and merged/purged two dissimilar database formats into one database. The program supported Metropolitan Fiber Systems' acquisition of another telecommunications company. Created an EDI system in ksh using NDM™ to transfer orders from external clients to the MFS order processing system. The system received orders and returned firm order commitments over a leased line. Wrote software to create faxes from firm order commitment (FOC) reports. The software accepted FOCs generated by the order processing system, and using data queried from a Sybase database, created troff output, which was converted to Postscript™ and sent to a fax program for delivery.

PRC Public Sector — Chicago 911 Project
Chicago, Illinois
January 1995 —
February 1996

Developed RF communications software for five different types of hand-held computers equipped with radio packet modems for the Chicago Police Department. Developed RF communications software with integrated global-positioning system reporting for the Chicago Fire Department. The RF network was a Motorola private radio network using the RDLAP protocol. Software was written in C++ using Nettech RFMLib 2.5.

Motorola — Cellular Infrastructure Group
Arlington Heights, Illinois
June 1994 —
January 1995

Worked with a tools team chartered to develop software for systems engineers in a cellular telephony environment. Software was developed in C++, C and Informix SQL. Responsibilities encompassed the design and implementation of software tools, and administration of the development environment:

Designed and coded a user-programmable SQL report engine in C++ and Informix. Developed an emulator for the EMX 2500 switch's translator, using C and Informix Managed revision control system, make files, and product release system.

The SQL report engine was the anchor for a Command Script Generator (CSG) that queried a set of relational database tables, emitting commands to initialize the Managed Information Base (MIB) for a digital cellular telephone system. The engine was designed to be completely user-configurable, allowing arbitrarily complex queries to be formulated and output in a user-defined format. This tool was used successfully in December 1994 to set up systems in Seattle, and Los Angeles.

System Software Associates,
Chicago, Illinois
September 1992 —
June 1994

Ported Business Planning and Control System (BPCS) to HP-9000 architecture. BPCS, the company's major product, is a large manufacturing software package written for the IBM AS/400 in RPG and DDS. The port was done by creating cross-compilers, developed on Unix, for the RPG and DDS languages. The compilers converted RPG and DDS sources into ANSI C code that runs on HP-UX Unix. As technical lead for the DDS compiler: Supervised staff and contract programmers. Hand-coded lexical analyzer in C. Designed a BNF grammar for the DDS language. Implemented DDS language parser in yacc. Coded external symbol reference resolver in C with embedded SQL. Designed and coded an AS/400 emulator library to run on Unix. Developed a full-featured list management library. Documented library functions in man page format.

Also performed systems administrative tasks: Installed and maintained RCS version control system Administered Ethernet TCP/IP network Installed and configured the Linux operating system for networked PCs

Policy Management Systems Corporation,
Columbia SC
January 1991 —
September 1992

nance.

Provided technical support for client — systems-analyst design sessions Developed a finite-state machine dialog procedure controller, adopted as a company-wide template for complex, rule-driven dialogs Designed and implemented a version control system in C Wrote a Korn-like shell for OS/2 which supported command line history, aliasing, and command substitution

Consultant/Developer
Columbia SC
March 1989 —
January 1991

Developed applications for service and retail business clients. The software was written in C using the C-Worthy screen library and ISAM routines. Applications included the following:

Customer and order entry application Labor cost accounting system tracking hourly labor charges Payroll application interfacing with labor cost accounting Patient database and mailing list manager for Miracle Ear