

Prescott K. Turner, Jr.

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Summary

Senior technical leader with a wide variety of platform and language experience, expert in C++, designed and developed code leading to the launch of multiple software products. Goal: to design and implement highly flexible software (such as development tools) using C++ among other languages.

Experience

2001 March - 2004 July

Software Developer

MKS, Burlington, MA

Enhanced Code Integrity's model building UI to support Unix, and enhanced its flexible model building Perl scripts to support Windows. Prototyped the model creation wizard using Haskell.

Implemented a lightweight C++ class library to manage multiple threads portably on Windows and on Posix.

Prototyped a new feature using COM technology. This would provide integration with Microsoft Word's document object model.

Supported third party parser technology tightly integrated with MKS technology, locating defects and refining test cases for passing on to Edison Design Group. Implemented compatibility with the command lines of C and C++ compilers from Microsoft, Sun, HP, and Gnu.

Provided backup support for Code Integrity customers due to the technical nature of Code Integrity model builds.

1997 October - 2001 February

Member of Technical Staff

Software Emancipation Technology

Burlington, MA

Designed and implemented a one-click user interface for creating the Discover software model, based on project files from Microsoft Visual Studio. To coordinate multiple processes and their messages, implemented a high level communications API, based on XML, TCP sockets, and including a multithreaded server.

Added Java support to the Discover software model and applications, modifying a Java parser to extract the names and structure for use by multi-language tools. Added tool support for Java-specific constructs such as interfaces and packages.

Updated software tools in their handling of C++ templates, as well as general maintenance of C++ and SQL language support. Modified the GUI of a utility program to use Tcl/Tk. Occasionally visited customers for information-gathering and support.

1995 May - 1997 August

Senior Software Developer
INTERSOLV, Inc., Framingham, MA

Designed a means of automatic generation of web server application programs, so that INTERSOLV's Allegris development tool supported the World Wide Web. Implemented this capability, known as Allegris Web, based on HTML, HTTP, ISAPI and NSAPI standards, as well as Windows interprocess communication (IPC) and threads. Supported Microsoft and Netscape web servers. The implementation enabled Allegris marketers to demonstrate the product's Web capability.

Developed a cross-platform GUI-based string table editor, enabling our customers' programs to be globalized conveniently, in such a way that the same program can be understood by users in any language. Designed and implemented the string table classes which support both the string table editor and globalized programs.

Implemented further internationalization support in the C++/Views library for portable GUI programming, completing multi-byte (DBCS/MBCS) and wide character support specifically for the Unix/Motif, 16-bit Windows, and OS/2 platforms. Implemented cross-platform serialization of character strings using Unicode. This work enabled our customers to easily deal with strings and streams of characters regardless of language, worldwide, and on all significant development platforms.

1989 December - 1995 April

Consulting Software Engineer
Liant Software Corp., Framingham, MA

Designed multi-byte and wide character support in C++/Views, enabling users of this library to easily globalize their applications. Implemented and tested these features specifically for 32-bit Windows and Macintosh.

Completed the general release on Macintosh of the C++/Views library. Designed new ways for C++/Views programs to behave correctly for Macintosh. Supported beta sites and customers. The Macintosh release added value to the C++/Views product by making it first class in cross platform capabilities.

Coded improvements to the Unix/Motif version of C++/Views.

Led the technical design and implementation of the LPI C++ compiler's front end. Designed the implementation of templates. Implemented destruction, **new** & **delete** operators, access control, default arguments, looping & switch constructs, member pointers, and overloading resolution. Improved the compiler's speed. These features led to the first release of LPI C++, a product which Liant sold for more than two years.

Trained sales and customer support staff in C++.

Education

Master of Science, University of Wisconsin-Madison, Computer Sciences
Master of Arts, University of Wisconsin-Madison, Mathematics
Bachelor of Arts Cum Laude, Harvard College, Mathematics

Industry Associations

Member of the ANSI C++ standards committee, with particular contributions to its core language working group, 1989-1995.

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Languages

C++

C

Perl

PL/I

Java

Fortran

Scheme

Haskell

Platforms

Unix

Windows

Macintosh