

David Wayne Thomas

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Career Summary

Twenty-plus years of software development experience, mostly in C/C++ language, with other experience in Prolog, Delphi, C#, mixed native and managed C++ with .NET, Javascript, Python, SQL, Java, Hibernate. Developed code in the areas of knowledge management, graph databases, dtSearch, OCR, computer forensics and eDiscovery, pattern matching algorithms, Windows core API and services, schema-based services, multi-threaded and concurrency development. The last several years have included the use of agile development concepts.

Experience

Bloomberg LP (Jan 2016-present). Hired on from contract work for backend services development for Bloomberg's Know Your Customer products. Python used for some of the services work and Java currently being used for new services work, using Spring and Hibernate.

Independent contracting with Bloomberg LP—through Genesis10 (May 2014-Dec 2015). Independent contract work doing software development for Bloomberg's Internal Systems department. Areas of development include schema-based backend services in C++ and Python, middle-ware and user interface software in Javascript. The latter is the Bloomberg's Terminal preferred application development environment. Experience gained in large-scale deployment of services and applications as well as working within a large development environment. Some SQL experience for database interactions.

Independent contracting with Marrek Inc. (Jan 2014-Nov 2014). Independent contract work as C++ development for medical imaging software, using the Qt, VTK, OpenCV, ffmpeg libraries. Installed and prepared a git server with repositories for the company.

AccessData Corp. (Forensics Software) (Dec 2006-Oct 2013). A senior developer developing and improving core code for forensics and eDiscovery software. Areas of development includes text indexing and searching with dtSearch, OS file systems, native code to/from CLR managed code, OCR processing code using third-party OCR SDK's, performance optimization of native code, other low-level coding tasks. Most of my development has been in C++, C++/CLI, and some in C#.

Independent contracting with AccessData Corp (Jan 2006-Nov 2006). Part-time independent contract work, developing prototype software demonstrating stealth remote information access of Windows computers and launching of remote processes. This involved native and mixed CLR coding in C++ and .NET development in C#.

RemedyMD. (Medical Online Software) (Dec 2005-Aug 2006). A senior developer leading the implementation of intelligently driven support for clinical and medical research. Includes implementing Ontology Services for the medical field, which is accomplished by importing UMLS into a graph within memory, allowing for quick query traversals.

AccessData Corp. (Forensics Software) (Sep 2005-Nov 2005). A senior developer providing improvements for three of their forensic applications (two Windows, one Linux), leading to new releases.

Cogito, Inc. (Sentient Technology Software) (1990-2005). Senior programmer and lead developer for Sentient Technology Software, as well as other programs necessary to support other projects. Most development was done in C/C++ and Prolog. Software development for Sentient Technology included implementing a conceptual network graph database, natural language interface, views of the knowledge (DOS and Windows), Windows development, and data migration. Extensive use of procedural, object oriented, and predicate-based programming. Development of programs for integrating CAD and database files.

The core technology developed for the conceptual network graph database is unprecedented and unique, and includes storing the meaning of the data/knowledge, encapsulating languages to communicate the knowledge to the user (consisting of trees, forms, drawings, natural language, etc.), and automatic generation of documents. Supervised and implemented the re-architecture of the software from DOS to Windows and later to Linux. Developed modules for learning from legacy databases and drawings into Sentient Technology Software. The programming skills developed and incorporated during employment include C++ concepts; Prolog's predicate logic; general programming structure and development and management of a large project.

Physics and Astronomy Department, Louisiana State University; Physics and Astronomy Department, Brigham Young University; Utah Valley Community College (1984-1990). Teacher, Teaching Assistant, Research Assistant. Taught astronomy and physics labs, and taught WordPerfect and Lotus.

Assorted jobs for college education support. (1979-1988). Experience: stockbroker, programming, census taker.

Exxon Nuclear (1978-1979). Assistant Computer Technician. Maintained computer peripherals, programming support for modeling nuclear fuel rods.

Education

Louisiana State University: Major: Astronomy with Physics, 1988-1990. Two years of graduate studies.

Brigham Young University: M.S. in Astronomy, 1988. Education and research in physics and astronomy included extensive programming.

Brigham Young University: B.S. in Physics, minor in Mathematics, 1985.

Personal

Characteristics: logical thinker, intelligent, capable of grasping large complex structures and developing the details, dedicated, persistent, capable of solving problems. I enjoyed programming during my education because of the combining of my greatest interests: astronomy, physics, mathematics, and computer programming.