Terry Davis

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Summary

Director of Engineering, Director of IT, System Architect, UI/UX architect, team leader, senior developer with many years development experience as architect, designer, Javascript, lisp, ruby, Java/C++/C# programmer. Familiar with MS SQL Server/MySQL/Oracle node.js, mongo/ NoSQL and graph databases Allegrograph and fuseki/Jena. Familiarity with multiple engineering best practice methodologies, expert in UML modeling, and RUP and Agile. Very strong in leading edge Web technologies including JavaScript, JQuery, AJAX, JSON/JSONP, MVC including Ember, Angular on AWS and the cloud. Effective scrum leader and mentor.

Skill Sets

|  |  |  |  |
| --- | --- | --- | --- |
| JavaScript | 10 | Ember/Angular/SPA | 8 |
| HTML5/CSS3 | 9 | Agile | 8 |
| UI/UX requirements capture | 9 | React | 5 |
| Team Lead | 8 | Data modeling | 9 |
| AWS | 7 | Google cloud | 5 |

Overview

I have been a leader in software engineering my whole life. I have led teams from 2 to 50 in real-time and web developments for preschool education, college level assessment

I work best as a team leader and mentor. I have been effective as as architect, technical lead or project manager.

I am an expert in semantic machine learning and the semantic web and have worked with artificial intelligence natural language systems. I’m expert in lisp. I am knowledgeable in OWL, RDF, RDFS and graph databases and have build inference engines using SPaRQL.

I am also a certified developer in HTML/CSS/JavaScript, JQuery, and mongo, Ember, Angular variants and React/Redux.

I am above all a leader and pride myself on my people skills and my ability to complete projects and inspire my teams to excel.

I have a zeal for usability and the user experience. I am competent as an Agile scrum leader. I am expert in requirements capture a certified project manager and certified scrum-master.

Highlights

DavisSoft

Feb 2011-Present

Consulting

Cloud and internet technologies consultancy *http://www.davissoft.com*

I operate an open consultancy through Davissoft.com. My passions are the semantic web, data modeling, artificial intelligence, OWL and SPaRQL.

Ember, Angular, Bootstrap, bower, grunt, gulp, node, npm, karma; JSON, XML; HTML/CSS/SASS; Windows, Linux/XWindow; JavaScript, AJAX, lisp, ruby, python, perl, PHP, Java; Allegrograph, MySQL Server, MS SQL Server, Sybase, Oracle; Lean, Agile, UML, RUP; RQL, SPaRQL,OWL.

AgileBTS

Feb 2018-April 2018

Software Engineering Lead Contract

I lead groups of project managers, designers, and engineers to work on CRP and ERP toolsets and integrations with ZoHo CRP.

I lead and directed teams, set direction, recommend solutions, and mentored staff in all phases of Agile development including SCRUM master mentoring.

I supervised 3 engineers, and also an offshore Java integration development team of 6.

We used Angular 1.4, karma, mocha and npm, and Unity 4. Microsoft Visual Studio as part of the toolsets.

Prototyped portal migration subscription platform on AWS, using javascript, react, node, node express, mongo, Java, maven, JUnit.

Age of Learning  
June 2015-March 2016

Director of Engineering / Activities

Director of Engineering / Tools

I lead groups of producers, animators, designers, and engineers to work on early learning and elementary education production tools.

I lead and directed teams, set direction, recommend solutions, and mentored staff in all phases of Agile development including SCRUM master mentoring.

I supervised 14 engineers, including 2 offshore teams of 6 each. We developed single page Angular derived web applications and Unity apps on android and iPhone platforms.

We used Angular 1.4, karma, mocha and npm, and Unity 4. Microsoft Visual Studio as part of the toolsets.

McGraw-Hill Higher Education

2012-2015

Engineer Software – UI Lead

Web Design & Usability Lead for design and front-end development of customer facing and internal web applications using JavaScript/JQuery tools and data visualization solutions using 3D javascript libraries.

Developed cutting education assessment engine web applications with responsive web UI/UX solutions with J2EE backend using JQuery, Ajax, JavaScript, HTML5/CSS3 components.

Java, JavaScript, HTML, XML, wire framing and scripting. Led architecture of Java SPRING API team and supervised SDK for web applications in an agile environment using TDD and BDD where appropriate.

Prototyped advanced widgets for courseware, graph database / visualization components for ontology navigation, content management and search requiring graph database, OWL, RDF, ontology design.

Developed standard cross platform mobile development framework for Android, iOS and Windows mobile.

Led team to develop Angular and Ember MVC single page applications to manage content metadata for MHHE products with responsive web UI/UX solutions ReSTful J2EE backend, using Angular, Ember, JQuery, JavaScript, HTML5/CSS3 components in an Enterprise Agile Scrum / Jira environment.

Worked to build an ontology of knowledge using machine learning and artificial intelligence using standard web tools, Proficient in Allegrograph, OWL, SPaRQL. Led team to to build inference engines for taxonomy and ontology context generation.

Trained / certified in mongo / noSQL development and administration, trained in CouchDB noSQL, and node.js.

Mentored staff in web technologies, Javascript programming, JQuery, mongodb, node.js.

GE Capital  
GE Fleet Leasing Web  
2011 -2012  
Senior Web Developer, JavaScript/JQuery

Web Design & Usability Lead for design & front-end development of internal and external facing web applications using progressive enhancement, accessibility using JavaScript/JQuery tools and data visualization solutions, progressive enhancement, accessibility, JavaScript/JQuery tools and data visualization solutions.

Developed cutting edge UI/UX solutions with J2EE backend using JQuery, Ajax, JavaScript, HTML5/CSS3 components.

Developed state of the art JavaScript components integrating diverse platforms for large fleet leasing and management applications.

Used expert knowledge of web technologies, including Java, JavaScript, HTML, XML, wire-framing and scripting. Provided leadership in researching and tracking new web technologies, developing service applications and interfaces consistent with business rules.

Wells Fargo

2011

UI/UX Architect, BA, Team Leader

Architected and developed cutting edge UI/UX solutions on Microsoft VS2010 ASP, using JQuery, Ajax, JavaScript, HTML5/CSS3 components.

Acted as the highest-level UI/UX expert on the development and implementation of highly complex, large-scale internet and intranet application integrating diverse platforms, crossing multiple business lines.

Used expert knowledge of web technologies, including C++, Java, Java Script, HTML, CGI, XML, ASP, database modeling tools and database interactions. Provided leadership in researching and tracking new web technologies, developing service applications, and analyzing business requirements as they pertain to web-based systems. Provided direction and guidance to less experienced staff.

Open Source Contributions

MAID

*2015-present*

*Ruby Mac utility*

*‘*Be lazy. Let Maid clean up after you, based on rules you define. Think of it as "Hazel for hackers”.'

<http://rubygems.org/gems/maid>

In progress additions for GUI front end to write rules, manage Maid.

Notable Past Contributions

Firefox

*2005-present*

*Open Source Development Team*

Most notably, re-architecting extension/ plugin update processing, began shipping in v 3.0, coding C++, leadership, code evaluation. Continues.

**Apache httpd**

*1999-present*

*Open Source Development Team*

Member of development team on *open* Linux, OpenBSD, and FreeBSD systems. Development of documentation and coding in C, C++, configurations, documentation. Continues in limited ways.

Gnome

*2004 -2007*

*Open Source Development Team*

Various contributions, debugging, C coding, documentation, testing, focus on communications. Continues in limited ways.

XFree86 / XOrg

*1995-2006*

*Open Source Development Team*

Member of development team on *open source* X Window for Linux, OpenBSD, and FreeBSD systems. Development of documentation and coding in C, C++.

Education

React/Redux

Angular.js 1.4/1.5/2.0

Ember 1.x, 2.x

Certified mongodb for Developers, mongodb for DBA’s, mongodb for node.js

HTML/JavaScript/JQuery W3 Schools Certification 2010

University of Minnesota Computer Science / Astrophysics

Transitioning to .NET

XML Schemas for eBusiness

COM/DCOM Using ATL

IEC 61508 Safety Related Systems

Microsoft Windows NT Advanced Server

Microsoft SQL Server

Object Oriented Analysis and Design

Project Management for Technical Professionals

ATT System V Internals, Streams, Device Drivers

IBM Communications Protocols, System Network Architecture

Books / Articles

Author of Modern MVC Architectures: React, Angular, and Ember , (O’Reilly and Assoc, in progress)

Coauthor of *The DOS 6 Handbook*, PC World Books, IDG Books, 1993

Coauthor of *The Fully Powered PC*, PC World Books, Simon and Schuster, 1985

Organizations

**Mensa,, IEEE, ACM, and a few other memberships over time**

Chronological Experience

Honeywell Defense and Aerospace

2007-2008

Real time .Net development

Analysis, design, specification and development of real time C# .Net projects. Requirements and design documentation using Microsoft Visio UML. Special focus on real time control, object oriented data persistence, Microsoft Remoting

Anderson-Crane

Director of IT

2003-2007

As Director of IT I was responsible for the Anderson-Crane companies information infrastructures; LAN, WAN, PBX, and MIS. In addition to management activities, projects include re-architecting WAN, WAN/LAN environment; migration to a mixed Microsoft /Linux environment; Linux desktop migration; MIS AR/AP/CRM conversion process; business integration; 6 Internet/ intranet Web development projects; problem tracking system, workgroup CRM/project management system, Microsoft Visual Studio 2005 (.Net) system for price change automation in C## and C++, Java/ JSP/JavaScript, asset tracking system in MSAccess, supply management system, Progress programming, AiX system administration, Perl scripts, AWK scripts, MySql/PHP/Dreamweaver, SOA architecture, contract execution, staff supervision and training.

Group1 Software

Doc1 Digital

5/02 – 8/02

Team member for host integration, commercialization and internationalization projects for internet bill payment and presentment system. Internet technologies: XML/COM/ASP; Platform: Windows 2000; GUI :Win32; Languages: Microsoft VC++ and some .NET; Data persistence: Microsoft SQL Server ADO; Analysis/Design : UML with Microsoft Visio.

MTS Systems Corporation

Aircraft Test Systems  
2/01–5/02

Member of development team for AeroPro real-time aircraft test system using Visual C++, Win32 API, and ATL for Microsoft Windows NT 4.0 and Windows 2000. Design documented in UML with Microsoft Visio, requirements specification, development, and testing.

Detector Electronics

6/00 – 2/01

Senior software design engineer responsible for requirements through implementation phase of distributed real-time control systems in the fire and gas detection industry. OOA, OOD, OOP using RUP, Rational Rose, UML, Microsoft Visual C/C++, Forte for Java, JDK1.3. C/C++ development of embedded systems. OLE for Process Control (OPC) COM/DCOM.

Kairos-Damango

7/99 – 6/00

Team leader of virtual computer team developing GUI applications and tools in Java 1.1 and 1.2 environments targeted to Apple, Linux and Windows implementations. Supervised requirements phase through implementation of user interface components development using XML data models.

Network Management Golden Valley MN

OO Analysis and Design

9/98 – 5/99

Consultant to perform object oriented analysis and design using UML and C++, development of distributed client server system for financial applications on Windows 95, Windows NT, and UNIX platforms, mentored NMS staff in project development process, OOA and OOD.

Medtronic

8/96 – 1/97

Project leader; reverse engineered object oriented pacemaker programmer design and performed object oriented analysis and design of a rule based intelligent assistant with Rational Rose, OS/2, and C++.

Project leader; patient monitoring device, reverse engineered object oriented pacemaker programmer design and performed object oriented analysis and design of a pacemaker home assistant with Rational Rose, OS/2, and C++.

Delta/Northwest Airlines

11/95 - 8/96

Project leader for the Northwest Airlines Electronic Ticketing project; developed project plans, assigned tasks, supervised team members, gathered requirements, designed system architecture, designed components, and implemented components in a Sun / IBM Unix/AiX environment using C, Coad/Yourdon Object Oriented methods, Yourdon data flow diagrams, and data modeling.

Project manager for Priority Queue Management II, I lead a team of analysts, performed project management, technical leadership. Project duration; requirements phase through acceptance and integration with the production reservation system.

Project leader for Automated Correction of Errors (ACE) system architecture update for the Automated Reservation group at NWA. Analysis, reverse engineering, and requirements specification and project management.

Motorola

6/95 - 11/95

Sub-contractor to update a MNDOT real-time traffic control system to controlled ramp metering, radio and information attention signs, reverse engineering of existing control systems, design and implementation of combined system using Borland C++, Booch OOA/OOD and Coad/Yourdon methodologies. The implementation included multi-threaded client and server applications and a database and user profile editor.

MedSource

1/95 - 5/95

Consultant to MedSource directed the replacement of a batch and online query system in the PC/DOS FoxPro environment with Microsoft NT Server 3.5, SQL Server 4.21 and Visual C++. Insert and update phases via bcp. Batch reports and extraction are via Microsoft Access. My functions included project management, analysis, design, and implementation of the project.

3M Corporation Information Technologies

Customer Service Management System Team

1/94 - 1/95

Consultant to Minnesota Mining and Manufacturing Corporation responsible for assisting the CSMS support team in identifying ways to improve the stability and robustness of a client server customer service system (CMS). Problem trend analysis, throughput analysis, configuration recommendation, and Powerbuilder 3.0 and Microsoft Foundation Classes / Visual C++ programming as necessary to assist support and develop tools. System components included PowerBuilder 2.X/3.X Microsoft Windows 3.1, Windows NT, HP UNIX, Sybase 9/10, OS/2, and links to IBM IMS and 3270 sessions on TCP/IP.

Harbor Stone Inc.

9/93 - 2/94

Consultant to Harbor Stone to assist in the implementation of a Microsoft Windows 3.1 form design and other tools the convention industry using Microsoft Visual C++ and Microsoft Foundation Class (MFC) Libraries

Allegheny Power Greensburg PA

4/93 - 9/93

Consultant to help establish connectivity between Allegheny Power Communications Network Processor (CNP) and Allegheny Power SCADA system. Development of system design documents, design and implementation of a communications API, and design and documentation of the CNP Host interface client based on TCP/IP Berkeley sockets IPC on OS/2 2.1 workstations.

Computing Devices

9/93-10/93

As a consultant to Computing Devices, I advised on establishing MIL-STD 1780 to Solaris FTP connectivity for AWACS enhancement project.

Target Stores

9/92 - 9/93

Communications Server Project

Consultant to perform project planning, system design, and implementation of a network extensible real time data collection system for distributed control of store HVAC and energy systems. Development of multiple protocols for Advance Logic Control and Enercon Data controllers. Real time data was gathered by the communications server over standard telephone lines, and formatted for a dBase IV database. Microsoft Access was used to access the dBase database for analysis; Object Oriented analysis and design; Microsoft C/C++ 7.00 on MS DOS 5.0.

Help Desk Call Log

Using Microsoft Access 1.1, designed and developed a prototypical help desk call logging system that integrated the real time data from the Communications Server.

United Health Care Corporation

Provider Link

11/91 - 4/92

Design, implementation of communications API and participation in redesign of distributed system. Implementation of interrupt driven asynchronous communications interface for MS/DOS and reengineering of query handler module to support asynchronous communications.

Honeywell Systems and Sensors Development Center

9/90 - 9/91

Data and Software Technologies

Database Access Integration Services (DAIS)

Consultant to principle engineer and participation in the planning, project management, design and implementation of DAIS project software deliverables for Electrical Power Research Institute (EPRI), to develop ISO draft standards for the electrical utility industry, provide uniform database access methods using existing standards where possible. Standards selected include SQL (X3.135 1989), RDA (ISO/DP 9579), ACSE (DIS 8649, 8650), Presentation (DIS 8822, 8823), and Session (DIS 8326, 8327).

The targeted development modeled ISO standards on existing communications architecture's and Application Programming Interface (API) of RDA and ACSE standards to DAIS applications. Environments were IBM MVS/CICS, UNIX (SunOS 4.1 and Silicon Graphics). Session layer services modeled to accept subset of services provided by Network Systems NETEX and UNIX/BSD sockets.

Object Oriented Methods

Consultant to participated in project management, planning, design, and implementation of a real-time control system as a production benchmark using object oriented analysis, design and implementation in C++, evaluation of C translators and compilers, and assist in preparation of paper for OOP industry of results. Collaboration with Grady Booch / Rational Software.

ADC Telecommunications

NetStar Monitor Project

4/90 - 9/90

Consultant to assist in design and implementation of distributed real-time control system to collect and analyze T1 line performance. Design formalized using IDE Software Through Pictures (STP), object oriented design and structured design methods.

Ultimap Corporation

Groupe Bull Project

1/90 - 4/90

Consultant to identify potential problem areas and provided solutions for functional areas of Ultimap Geographical Information System (GIS) leveraged through Apollo/Domain/AEGIS/2D GMR environment not available in UNIX SV.3.2/OSF Motif/X11.4/PHIGS environment, design, and implementation of prototype Ultimap GIS on UNIX SV.3.2 X11.3/PHIGS platform, and exercised technical and team leadership in UNIX, X11, Motif, and C development. 8/89 - 3/90 On subcontract to Hedstrom Engineering, I advised and directed system design and implementation of triple axis micro engraver for 3M Corporation.

Hedstrom Engineering

Real Time Control

8/89 - 3/90

On subcontract to Hedstrom Engineering, I advised and directed system design and implementation of triple axis micro engraver for 3M Corporation.

IBM Corporation, Rochester Minnesota

8/88 - 9/89

Rochester Minnesota

APPN/APPC Development and Support

Consultant supported SNA products on IBM S36 and AS400 including analysis, problem determination, maintenance and support of SDLC, C/SNA, APPC, APPN, and X.25 communications products. Typical methods involved post-mortem dumps and trace analysis, development of program temporary fixes (PTF), code review, and testing. I was also given the responsibility for supervision of special projects including a project to establish more cooperative network administration and handling critical SEV1 customer situations.

ABB / BBC

7/85 - 8/88

LMS5000

Senior design engineer and project leader to design and implement distributed real-time control system to combine Load Management (LM), Distribution Automation (DA) and Supervisory Control And Data Acquisition (SCADA) utilizing UNIX. The design using remote procedure calls, X11, MS/Windows 2.x, NeWS, kernel experience in BSD and ATT UNIX, device drivers, NFS, TLI, and Streams.

VersaCom Protocol

Principal architect and co-author of proprietary communications protocols Versacom and MasterCom.

LMS4000

As senior design engineer designed, implemented, and maintained a single user LMS/SCADA system utilizing iRMX86 in PLM/86 and 8086 assembler.

BECOS 32 Project

Performed system administration, software maintenance and installation on DEC VAX running VMS 4.1. Developed productivity enhancing DCL scripts and tuned VMS for performance.