

# DAVE JARVIS

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Senior Software Developer

## Skills

Languages	C, C++, DSL, <b>Java</b> , JavaScript, PHP, PL/SQL, R, SQL, XSLT
Java	ADF, Ant, Gradle, Hibernate, <b>J2EE</b> , JMS, JPA, JSF, Maven, Servlets
IDEs	Eclipse, IntelliJ, JDeveloper, <b>NetBeans</b>
Protocols	FTP, HTTP ( <b>REST</b> ), RMI, SMTP, SNMP, TCP/IP, Telnet, UDP
Systems	AIX, DOS, HP-UX, <b>Linux</b> (RedHat, CentOS, Ubuntu), Solaris, Windows
Web	Ajax, <b>GlassFish</b> , httpd, JBoss, Jetty, nginx, OAS, Tomcat, WebSphere
Markup	ConTeXt, HTML/CSS, <b>JSON</b> , LaTeX, Markdown, <b>XML</b>
Databases	JPQL, MS SQL, MySQL, Oracle, <b>PostgreSQL</b> , SQLite
Repositories	<b>Git</b> , Harvest, Subversion
Trackers	Bitbucket, GitHub, <b>JIRA</b>

## Experience

### Technical Writer, Senior Software Developer

*White Magic Software, Victoria BC (12/2018 – 06/2019)*

Collaborated with 23 scientific illustrators and 60 scientists to author a photobook linking cosmology, astronomy, geology, the atmosphere, evolution, and climate change. Wrote technical articles that describe how the book was typeset.

- Sought and integrated feedback from scientists regarding prose and illustrations.
- Gave constructive feedback to illustrators to improve technical accuracy of illustrations.
- Drafted complete text, backed by research from over 900 scientific papers.
- Developed reusable, user-friendly bash script template to help build document.
- Implemented R program to generate temperature and CO<sub>2</sub> graph.
- Used Blender and Shotcut to create promotional materials for crowdfunding.
- **Technologies:** bash, Blender, ConTeXt, CSS3, CSV, HTML5, Inkscape, JavaScript, knitr, Linux, Lua, MetaPost, pandoc, R, Shotcut, SVG, XML, YAML

### Senior Software Developer

*CGI, Victoria BC (04/2016 – 12/2018)*

Worked on a twelve-person team to build a public-facing e-commerce solution for the Ministry of Education that enables students to order transcripts and graduation certificates online.

- Raised major security vulnerabilities with application process flow.
- Performed code reviews and suggested development process improvements.
- Suggested and realized numerous user interface enhancements to client.
- Implemented student transcripts and graduation certificates using JasperReports.
- Developed Java interfaces and classes within a service-oriented architecture.
- Debugged existing code base, designed and implemented architectural simplifications.
- **Technologies:** Ant, Bootstrap, ConTeXt, CSS, Fuse, HTML, JasperReports, Java EE, JavaScript, Jenkins, JIRA, JBoss, Linux, NetBeans, Oracle, RichFaces, Service-Oriented Architecture, Spoon, SQL, Subversion, UML, XML, XSLT, XWiki

### Senior Software Developer

*Ministry of Justice, Victoria BC (01/2015 – 03/2015)*

Developed a Ministry-facing web application to administrate customer-facing applications.

- Discussed, refined, and simplified requirements (including user interface elements).

- Engaged in progress meetings and gave demonstrations.
- Suggested software development lifecycle improvements to overall process.
- Implemented jQuery-based menu system, with a dynamic component.
- Developed a Tiles mechanism to avoid many duplicate configuration files.
- Proposed and used naming conventions to avoid duplicating boilerplate Hibernate accessors.
- **Technologies:** CSS, Hibernate, HTML, Java EE, JavaScript, JSF, jQuery, Oracle, SQL, Tiles

**Senior Software Developer** *World West Technologies, Victoria BC (07/2014 – 11/2014)*  
Subcontracted to help implement infrastructure testing software for a financial institution.

- Discussed and refined requirements with development lead.
- Presented R&D results for proof-of-concept integrations (via WebEx).
- Entrusted with highly secure administrative access to remote development machines.
- Used WebSockets to execute commands from a C# client using a simple JSON protocol.
- Developed a namespace-aware schema validator and catalog manager for XML and XSLT.
- Implemented deployment script to work-around JBoss caching issue of JSP files.
- **Technologies:** Agile, C#, CSS, HTML, JBoss, JSON, JSP, REST, WebSockets, XML, XSLT

**Senior Software Developer** *Sierra Systems, Victoria BC (09/2012 – 11/2013, 02/2014 – 04/2014)*  
Modernized the BC Provincial Renal Agency's PROMIS system from Oracle Forms to Oracle ADF.

- Discussed and refined requirements with Business Analysts.
- Prepared and gave introductory presentations for various technologies.
- Assisted developers in learning Oracle ADF and JHeadStart.
- Extended open-source framework to integrate existing reports with ADF.
- Implemented Velocity templates for custom menus.
- Troubleshooting, code reviews, and research and development.
- **Technologies:** Agile, CSS, HTML, Java EE, JavaScript, JDeveloper, JHeadStart, jQuery, OAS, Oracle ADF, Oracle Forms, SQL, Subversion, Velocity

**Technical Architect** *Alberta Health Services, Edmonton AB (06/2012 – 01/2013)*  
Created a GIS-based resource management tool for the Network Telecom and Infrastructure group.

- Discussed requirements with Business Analyst.
- Created user interface mock-ups to clarify system requirements.
- Documented software requirements specifications.
- Installed and configured a map tile service for use with the OpenLayers JavaScript API.
- Created entity-relationships based on system requirements and spreadsheet data.
- Integrated Alberta Health Services zone data into private Open Street Maps installation.
- **Technologies:** Agile, Apache HTTP Server, CSS, HTML, JavaScript, jQuery, JSON, GIS, Linux, Mapnik, Microservices, mod\_tile, OpenLayers, Open Street Maps, Osm2pgsql, PHP, PostgreSQL, PostGIS, REST, SQL

### Technical Writer

*Alberta Health Services, Edmonton AB (11/2011 – 12/2011)*

Contracted to improve the Network Telecom and Infrastructure group's internal documentation.

- Created GraphViz-based solution for generating organizational charts, automatically.
- Created a high-quality series of document templates (Word, Visio, and PowerPoint).
- Advised managers on documentation management systems.
- Migrated technical network documents and diagrams to the new template format.

### Senior Software Developer

*Advantec HR, Tampa FL (01/2011 – 06/2011)*

Contracted to develop custom reports for a human resources company.

- Discussed and clarified technical requirements with business analysts.
- Revised existing reports (layout, spelling, design, and consistency).
- Gave numerous presentations on in-house solutions and vision for reporting architecture.
- Reliably solved a text segmentation problem (convert "firstname" to "First Name").
- Designed and implemented a labour-saving solution to creating JasperServer Domains.
- Created entity relations for generating resource bundles used by reports.
- **Technologies:** Agile, JasperReports, JasperReports Server, Java, Linux, PL/SQL, Oracle, SQL

### Senior Software Developer

*BC Ferry Services Inc., Victoria BC (08/2008 – 05/2010)*

Worked with nine people on an incident management system for the Operations and Security Centre. Built with Oracle ADF, the system helped record incidents (injuries, mechanical issues, security breaches) at terminals and on vessels.

- Discussed and clarified technical requirements with business analysts.
- Talked with the primary users to gather feedback and assist in troubleshooting.
- Provided on-call support (24/7) for the Operations and Security Centre Watch team.
- Designed and created custom reports to help reduce customer injuries, visualize incident trends, and allocate security resources.
- Coordinated, organized, implemented, and performed production migrations.
- Wrote Use Cases, drafted database ER diagrams, and implemented Action Items.
- **Technologies:** Agile, CSS, HTML, Java, JavaScript, jQuery, PL/SQL, Oracle ADF, SQL

### Senior Software Developer

*BC Ferry Services Inc., Victoria BC (01/2008 – 05/2008)*

Part of a four-person team to create a Passenger Manifest application that tracked passengers, customers, and employees during sailings.

- Assisted the business analyst to simplify requirements and design mockups.
- Provided technical direction to the hand-held device software developer.
- Used a RAD methodology to demonstrate, discuss, and hone functionality.
- Developed a JasperReports integration module for Oracle ADF.
- Created several passenger, customer, and employee manifest reports using iReport.
- Implemented the Passenger Manifest web application.
- **Technologies:** Agile, CSS, HTML, JasperReports, Java, Oracle ADF, SQL

### Senior Software Developer

*BC Ferry Services Inc., Victoria BC (08/2007 – 01/2008)*

Worked together with five others on a timesheet data entry web application

having “like-for-like” constraints with an existing desktop application using Oracle ADF.

### Senior Software Developer

*Ministry of Forests, Victoria BC (10/2006 – 05/2012)*

Developed a cost accounting system to facilitate data entry, tracking, and reporting of expenditures.

- Discussed, proposed, and documented system features with the Ministry.
- Initiated technical meetings (design sessions) to advance the project.
- Resolved issues with Vivid Systems in their authentication and authorization products.
- Documented technical specifications for stored procedures and mock-ups.
- Developed the entire web-based application to Ministry standards and specifications.
- Helped streamline the Ministry's user acceptance testing deployment process.
- **Technologies:** ADAM, CSS, HTML, Java, JavaScript, Oracle, SQL, Struts, WebADE

### Senior Software Developer

*Invoq Systems Inc., Victoria BC (08/2003 – 06/2005)*

Helped develop a critical event resolution system having high availability requirements. The system notifies users – depending on rosters and vacation schedules – about events (by phone, fax, pager, and others) and allows the users to respond to the event in real-time (e.g., “press one to sell stock”).

- Provided direct implementation support to Fortune 500 clients.
- Gave substantial architectural input for the system's third major release.
- Assisted testers, authored corporate coding practices, and performed code reviews.
- Designed, documented, and implemented third-party software integrations (with HP's OpenView NNM and BMC's Remedy AR System), which led to exclusionary partnerships.
- Enhanced the AlarmPoint Agent application to guarantee delivery of event notifications.
- Replaced Texas Instruments' fabrication event notification system with a new integration.
- **Technologies:** C, CSS, HTML, Java, Oracle, Perl, SQL, Subversion, XML, XSLT

### Senior Software Developer

*Abebooks.com, Victoria BC (05/2001 – 08/2003)*

Worked with several developers, system architects, graphics artists, and business analysts on a website for book buyers and sellers.

- Led development for an integrated shipping solution.
- Proposed and implemented architecture to substantially improve landing page up-time.
- Modified open source FTP software to use an Oracle database for authentication.
- Created a website translation toolkit for abebooks.com, .de, .fr, and .co.uk.
- **Technologies:** C, CSS, HTML, Java, Oracle, SQL, XML, XSLT

### Senior Software Developer

*Sudio Inc., Victoria BC (11/1999 – 05/2001)*

Sole architect of two software systems: a catalog browser (that involved extensive optimization) and a chat system (supporting multiple communication protocols).

- Implemented a BASIC interpreter to provide a syntactically terse way of avoiding duplicate code, while allowing real-time changes to system functionality.

### Software Developer

*Mitel Corporation, Kanata ON (05/1995 – 11/1999)*

Designed and implemented a Web Call-Control applet that talked with Smalltalk

via CORBA. Developed an Agent-based framework to develop telephony applications for a given vertical market. Studied human-computer interfaces, wrote department guidelines for graphical user-interfaces.

- Implemented Sun's JTAPI Service Provider specification for Mitel's PBX hardware.

## Achievements and Awards

**JasperWorld RockStar** (2011); **Apps 4 Climate Action**, Honorary Mention (2011)

Recognized for the *Climate Reports*, a web-based tool for climatologists and the general public to explore Canadian climate changes using over 100 years of weather data.

**Guest Speaker**, *JasperSoft*, San Francisco CA (2011)

Gave talk on JasperReports, R, and prediction at the first annual JasperWorld conference.

**Author**, *Indispensable*, Self Published (2011)

Wrote a 260-page technical manual on JasperReports, PostgreSQL, and R. Topics include report optimization, database organization, report customization, statistics, prediction, and integrations.

**Instructor**, *Abebooks.com*, Victoria BC (2003)

Created and taught Java programming fundamentals to six students for six weeks.

**API**, *JiGo (Java interface for Go)*, Personal Project (2001)

Designed and implemented an object-oriented framework for developing Go-related applets. Licensed to the Australian Department of Defense for a research project.

**Education** **St. Lawrence College**, *Computer Engineering Diploma*, Kingston ON (1992–1995)

**Training** Object-Oriented Project Management, Rational Software Corporation  
Object-Oriented Analysis & Design, Insight Technology Group  
Object-Oriented Patterns, Lockheed Martin, Advanced Concepts Center

**Projects**

<b>Audio Analysis</b>	Converts audio power amplitudes into timing curves (Blender)
<b>Recipe Fiddle</b>	NLP with microservices to generate recipe books (PHP, REST)
<b>RXM</b>	DSL to map relational data into structured documents (Java)
<b>Scrivenvar</b>	Editor with real-time variable interpolation preview (Java, R)
<b>Tally Time</b>	Time-tracking mobile application (AngularJS, Ionic)
<b>Video Player</b>	Optimized real-time MPEG to JPEG transcoder (C)
<b>Yahoo! Go Client</b>	Reverse-engineered Yahoo! protocol for custom viewer (Java)