

Robert M. Durkin, MD, MS

3940 Paintersville Port
William Rd.
Jamestown, OH 45335

Software Engineer

Phone: (909) 503-2925
Email: rob@robertdurkin.com
Web: www.robertdurkin.com

Highly qualified and accomplished software engineer and clinical information systems developer/analyst with more than 15 years of consulting and software development experience for healthcare, research, education, and government. Experienced in the design, development, implementation, delivery and maintenance of cost-effective, advanced technology solutions to meet the needs of challenging business problems. Exceptional communication and interpersonal skills. Highly motivated with a strong work ethic and committed to staying current on innovations in technology and computer science.

Areas of Expertise

General:	Object-Oriented Programming • n-Tier • Agile Development
Java Technologies:	Java SDK • Java Enterprise Edition (JEE) • Java Database Connectivity (JDBC) • Java Servlets • JavaServer Pages (JSP) • Java Persistence API (JPA) • Enterprise JavaBeans (EJB) • JavaMail • Java XML API (JAXP) • Java Messaging Service (JMS) • Java Connector Architecture (JCA) • Java API for RESTful Services (JAX-RS) • Java Transaction Architecture (JTA) • Hibernate • Java Performance Tuning • Java Web Services
Development Tools:	Delphi • JBuilder • Embarcadero RAD Studio XE2 • Eclipse IDE • Subversion • Git • Ant • Maven • Junit • Bugzilla • HelpNDoc
Databases:	MySQL • MS SQL Server • PostgreSQL • SQL • JDBC • MongoDB
Internet/Web:	HTTP • HTML5 • CSS • JavaScript • AJAX • JSON • XML/XSLT • Sencha ExtJS & Touch • Apache HTTP Server
Web Services:	XML • SOAP • WSDL • UDDI • Apache Axis • REST • SOA
JEE Application Servers:	Apache Tomcat • JBoss AS • Oracle WebLogic Server
Platforms:	Linux • Mac OS X • Windows
Specialized API's/Components:	VA RPC Broker • VistaLink/KAAJEE • FusionCharts
Misc./Other:	VistA/M/RPCs • Assembler Programming • Instruction • Test Engineering/Review • Technical Writing

Professional Experience

IT SPECIALIST (LOMA LINDA VA MEDICAL CENTER)

2005 - Present

My role is to develop clinical software applications to support patients and providers within the VA enterprise. I work closely with physicians, nurses, administrators, and clinical applications support specialists to develop innovative software solutions to meet the need of challenging health informatics problems. As a developer and co-principle investigator, I have helped our local innovations team to secure six VHA Innovation grants to develop new clinical applications. In addition to development, I manage and support the applications I create and the servers that host them.

- Contributed software engineering expertise in the development of clinical applications through the software development lifecycle, from requirements definition through successful deployment.

- Developed a custom enterprise Java application server upon which a number of complex clinical VA applications are hosted.
- Worked towards helping the VA to achieve Meaningful Use Stage 2 certification by developing the After Visit Summary, which the VA has selected as the solution to satisfy the clinical summary MU requirement.
- Helped to make the Loma Linda VA Medical Center one of the most innovative VA's in the nation by collaborating with providers and administrators to develop many clinical applications.

Representative Projects

- **After Visit Summary** – provides patient-friendly summary of clinic visit
- **CPRS COM Object Framework** – general-purpose DLL extension for displaying Web applications within CPRS
- **Medication Reconciliation** – COM object-based documentation tool for outpatient medication reconciliation
- **Clinical Supervision Index** – electronic questionnaires delivered to trainees and supervisors via COM object
- **OR Surgery Schedule Viewer** – provides real-time display of daily scheduled surgical procedures
- **Automated Telephony Appointment Cancellation System** – IVR system that allows patients to cancel appointments
- **Notes Manager** – provides single interface for all unsigned/unsigned notes facilitating document review and electronic signature
- **Anticoag HealthTrack** – anticoagulation management system
- **CP/HL7 DataGateway** – parses HL7 messages from Clinical Procedures instruments and creates progress notes with results data
- **Orders Viewer** – retrieves orders for all patients for a location for processing by clinic staff
- **VistaBroker/JavaBroker** – Java object-oriented wrappers around VistaLink and RPC Broker client

INFORMATION TECHNOLOGY CONSULTANT

1998 - Present

As a freelance software developer and consultant I have worked with a variety of clients in healthcare and education to develop software applications to solve complex problems. Solutions that I have created as a contract software developer/consultant include: I developed a number of clinical applications for the Veterans Administration and consulted with other healthcare entities; I've created applications for educational institutions for administrators, teachers, and students; I have worked with the American Medical Association's Physicians Accessing the Internet project in teaching physicians the basics of accessing the Internet, using the Web and email in their medical practices, and the basics of Web site design via hands-on workshops in major cities throughout the country; I reviewed several technical exams for Bookman Testing Services, Inc including COM/DCOM, Delphi Programming, and Windows NT Application Development. I also authored a Delphi 4 Programming exam in 1999.

Representative Clients and Projects

- **EHR Doctors Inc.** - Customizations to the FOIA version of the VA's CPRS for CCR/CCD capabilities.
- **Kettering College** – eForms document signing system; MugBook online photo and profile registry for students and faculty; Academic and Enrollment Dashboard
- **Office of the Chief, Army Reserve (OCAR)** – eHealthRec interface provided electronic forms of medical records for active duty reservists with integration into VA EHR.
- **InterClin, Inc.** – Developed an anticoagulation management system to provide healthcare professionals with all the necessary tools to manage anticoagulated patients.
- **Loma Linda VA Medical Center** – Developed a medical discharge summary application that saved the hospital hundreds of thousands of dollars on transcription fees; developed a data link for third-party databases and systems to upload data into the VA's Vista EHR.

ASSISTANT PROFESSOR OF COMPUTER SCIENCE, Southwestern Adventist University

Courses Taught (2000 – 2005)

- CSIS 105 - Introduction to Computing
- CSIS 110 - Principles of Computer Programming
- CSIS 215 - Object Oriented Programming in Java
- CSIS 301 - Information Security (Practical Unix & Internet Security)
- CSIS 310 - Assembler Programming and Machine Organization
- CSIS 360 - Operating Systems Design
- CSIS 450 - Principles of Database Design
- CSIS 490 - Software Engineering
- CSIS 491 - Fundamentals of Java Programming
- CSIS 495 - Advanced Programming Topics in Java
- CSIS 495 - Programming Web Services in Java
- BIOL 101 - Anatomy and Physiology
- BIOL 380 - Research Methods in Biology
- BIOL 450 - Histology

Education

Medical Education

Institution: Loma Linda University School of Medicine, Loma Linda, CA

Degree: MD

Dates of Attendance: Aug, 1993 - May, 1998

Graduate Education

Institution: Nova Southeastern University, Fort Lauderdale, FL

Degree: MS Computer Science

Dates of Attendance: April, 2000 - Sep, 2003

Institution: California State University San Bernardino, San Bernardino, CA

Course of Study: Computer Science

Dates of Attendance: June, 1999 - Dec, 1999

Undergraduate Education

Institution: Southwestern Adventist University, Keene, TX

Degree: BS Biology, Minors: Computer Science, Math, Physics, Chemistry

Dates of Attendance: Aug, 1989 - May, 1993, Aug, 1994 - May, 1995

Other Education

Institution: Lister Hill National Center for Biomedical Communications at the National Library of Medicine, National Institutes of Health

Description: Intensive 9 week training course in medical informatics in topics such as consumer health informatics, digital library research, World Wide Web applications, database design, medical language processing, image processing research, Next Generation Internet, biomedical knowledge discovery, and medical education systems.

Dates of Attendance: Mar. - April, 1998

Training

- M101J: MongoDB for Java Developers (Jan - Feb, 2014)
- M102: MongoDB for DBAs (Feb - Mar, 2014)
- Vista Foundations (Pioneer Data Systems): High level overview of Veterans Health Information Systems and Technology Architecture infrastructure modules (May, 2013)
- MUMPS for Programmers (Pioneer Data Systems): Introduction to the MUMPS programming language (June, 2013)
- File Manager for Programmers (Pioneer Data Systems): FM file storage, data dictionary, and FM APIs (August, 2013)

Honors and Awards

- Loma Linda School of Medicine Summer Research Scholarship, 1994
- Cum Laude Graduate, 1993
- *Deans List*, 1989-1993
- Biologist of the Year Award, Southwestern Adventist College Biology Dept., 1992-1993
- Silver Award for undergraduate GPA achievement, 1991-1993

Research and Publications

- *"The After Visit Summary: Patient-Centered Communication for PACT Patients"*
Study to assess patient satisfaction and usability of the After Visit Summary (AVS), a tool designed to provide patients with a clinical summary of outpatient appointments.
- *"Resident Supervision Index: Assessing Feasibility and Validity"*
This study assesses the feasibility and reliability of the Resident Supervision Index, a survey tool designed to quantitatively measure trainee supervision.
- *"Assessment of Physician Internet Usage Patterns Before and After Attending a Hands-On Workshop"*
Co-author: Bonnie Chi-Lum, M.D., M.P.H
Published in the Journal of the American Medical Association (JAMA)
- *"The GraphView Project: Using Java to Create a Graphical Representation of the Structure of Objects in the Visible Human ObjectStore Database for Viewing, Manipulation, and Modification."*
Lister Hill National Center for Biomedical Communications
National Library of Medicine at the National Institutes of Health
- *"Does the outcome of patients with non-electrical seizures (pseudoseizures) depend on their underlying DSM-III-R diagnosis?"*
Co-author: Carmel Armon, M.D.
- *"Assessment of Attitudes Toward Smoke-Free Campus Policy at Fontana Kaiser Permanente Hospital"*
Co-author: Bonnie Chi-Lum, M.D. M.P.H
- *"Assessment of Junior Medical Students' Change in Attitudes Toward Preventive Medicine Before and After a One Month Clinical Preventive Medicine Course"*
Co-author: Bonnie Chi-Lum, M.D., M.P.H.