

Karl M. Davis

Software Engineer

Maryland, USA

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Experience

- 2015–present **Associate Entrepreneur-in-Residence**, *Centers for Medicare & Medicaid Services*.
Federal term appointment to help deliver an enhanced Blue Button API. The entire project is hosted in AWS.
Specific responsibilities and accomplishments:
- Leading the development of the API's backend, which is a FHIR server built with the open source HAPI FHIR project.
 - Leading the development of the data feed that populated the FHIR server. This involves extracting, transforming, and loading over 10 TB of consumer health data.
 - Leading the development of the project's DevOps pipeline, using Ansible, Jenkins, AWS, and other tools.
 - Helping the team, which includes federal government employees and federal contractors, adopt an agile process for this project.
- 2009–2015 **Advisory Software Engineer**, *IBM*.
Part of the COPLINK product engineering team. Have led and/or participated in the development of many components of the product suite.
Specific responsibilities and accomplishments:
- Most development was in Java (J2EE) but I also heavily utilized all of the following languages and tools: JavaScript, Dojo Toolkit, Bash, Apache Maven, Apache Ant, and Jenkins.
 - Development lead for small teams on a wide variety of components: Source Ingest API, XML Checker, Lookups Updater, COPLINK Source Extraction Engine, and Remote Administration Monitor.
 - Produced statements of work, specifications, and oversaw the implementation of many custom development contracts, such as: GUI customizations and a mobile field interview application.
 - Worked onsite with the team in Tucson, AZ until 2013 and remotely afterwards.
- 2006–2009 **Principal Software Engineer**, *Ridgetop Group*, Tucson, AZ.
Managerial and technical lead for a small team of software engineers.
Specific responsibilities and accomplishments:
- Project lead for a \$1.2M Navy research & development grant to develop a software approach to reducing IT maintenance costs.
 - Wrote SNMP and WMI clients in Java that were used to remotely pull and analyze IT systems' current state.
 - Wrote a workstation data collection application and created a prototype sensor implementation for it (a handheld GPS unit).
 - Wrote numerous government R&D proposals, at least three of which were awarded grants.
- 2005–2006 **Software Engineer, Contractor**, *Vision7 Software*, Tucson, AZ.
Software engineer on over a dozen different projects. Programming languages and frameworks used included: C#, ASP.NET, ASP, VBScript, HTML, and CSS.
- 2002–2005 **Support Systems Analyst**, *University of Arizona*, Tucson, AZ.
Primary responsibilities were as a helpdesk technician. Also developed an account management tool using C# and ASP.NET that interacted with Microsoft Active Directory.

Personal Coding Projects

- Developed RPS Tourney (github.com/karlmdavis/rps-tourney/): a simple game used as an excuse to play with various languages, tools, and libraries.
- Developed a content management system in Java using Wicket & JDO.

Languages

Java	Expert	<i>Java 1.4+: J2EE, Spring MVC, Wicket, Swing, Android, JDO, Guice, JUnit, and many other frameworks.</i>
JavaScript	Novice	<i>Have done small amounts of jQuery and Dojo Toolkit coding, on various work and side projects.</i>
.NET	Former Expert	<i>.NET 1.0 & 2.0: C#, Visual Basic, ASP.NET, and Windows Forms.</i>
Others	Novice	<i>Have occasionally hacked on Ruby, Python, JavaScript, and PHP projects.</i>

Technical Proficiencies

IDEs	Eclipse, NetBeans, and Visual Studio 2003 & 2005.
Dev IT	Git, Mercurial, SVN, Maven 2, Hudson/Jenkins, Nexus, Eclipse RCP, and other tools.
Systems IT	Extensive experience in the design and management of mixed-environment computing systems. Setup and maintained Windows servers using Active Directory, Group Policy, RRAS, DNS, DFS, and IIS. Have also setup and maintained Linux servers running DNS, Kerberos, LDAP, AFS, Zimbra, and Apache. Have used Puppet, a configuration management tool, to create and maintain systems.

Interests

Outdoors	Canoeing, kayaking, hiking, and board games.
Indoors	Small coding projects, reading, tinkering with IT, playing the occasional video game, and board games.

References

Available upon request.