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Summary

- Software developer, researcher and instructor with big data and computer science expertise.
- Methodical problem solver with effective communication, organization and leadership skills.
- Life-long learner with keen intellectual curiosity and a passion for new challenges.

Software Development and Computer Science Research

- Developed system to ingest and store a variety of XML data types for subsequent analytic processing in Hadoop and Accumulo. Hadoop MapReduce, some Apache Pig experience. Apache Avro, ANTLR DSL/parser generator. Maven/Jenkins/Sonar build/continuous integration/quality management. Agile project management. Department of Defense (DOD) 2011-present.
- Developed server-side logic to interact with Hadoop batch processing and storage system for computer network defense system. Hadoop and Accumulo. DOD 2010-11.
- Developed decision logic system for computer network defense using Java, Spring, MongoDB, Oracle and TIBCO JMS. Awarded Director's Team Excellence Award 2011. DOD 2009-10.
- Developed agent-based modeling and simulation application using Repast Symphony, Java and Spring to construct an event generator for wireless environment. The Johns Hopkins University Applied Physics Lab (JHU/APL) Internal Research and Development (IRAD) 2008-09.
- Used Business Process Model and Notation (BPMN) and Business Process Execution Language (BPEL) to rapidly integrate new workflows. Developed web services using Spring web service framework. Deployed to Tomcat and BEA Weblogic Server. Intalio BPMS, Java, Maven. JHU/APL 2008-09.
- Created thick client computer vulnerability analysis tool using Oracle 10g database and text indexing. Java Swing, Ant (open source version using MySQL and Lucene). JHU/APL 2003-06.
- Analyzed, designed and implemented web application for a configuration management system using Jakarta Struts, JavaServer Pages, Oracle JDeveloper, Oracle 9i Application Server and database. Raytheon, 2002-03.
- Engineered innovative web applications using Java Servlets, JDBC, XML, Apache/Tomcat and Sybase. Awarded Joint Service Achievement Medal for outstanding mission support. U.S. Navy 1999-2001.
- Created Microsoft Access Database applications to automate and electronically track Navy administrative processes. A training records tracker implemented at four Pacific Naval Security Group installations was designated an administrative benchmark during 2000 Inspector General (IG) inspection. Awarded Navy Achievement Medal. U.S. Navy 1998-2001.

Continuous Improvement and Teaching

- Creator of DOD software development brown bag lecture series to share knowledge. DOD 2013.
- Instructor for "Distributed Development on the World Wide Web" Computer Science graduate course at the Johns Hopkins Part-Time Engineering Graduate program. Summer/Fall 2003.
- Developed curriculum and taught five-day Introduction to Java at Raytheon in 2002.
- Certified as National Cryptologic School Adjunct Faculty for Java programming, Solaris System Administration delivering in-depth technical content. U.S. Navy 2000-01.

Leadership and Management

- Software Development team lead. Responsible for on-time, high-quality software, technical architecture, requirements management and customer interactions. DOD 2009-11.
- Chief Engineer for Enterprise Knowledge Systems group. Helped create group technical vision and cohesion. Enhance synergy across group projects to accomplish group goals. JHU/APL 2009.
- Section supervisor for Information Operations group at JHU/APL. Line manager for five personnel. JHU/APL 2005-06.
- Supervised seven Navy system administrators and support staff who maintained mission and mission-support systems. U.S. Navy 2000-01.
- Managed over 100 multi-service personnel as Operations Watch Officer in support of mission operations. U.S. Navy 1998-99.

Education And Training

- Completed Coursera Massive Open Online Courses (MOOCs) on Functional Programming in Scala (2012), Introduction to Data Science (2013) and University of Waikato Weka MOOC (2013).
- Recent conferences: BlackHat 2011, O'Reilly Strata/Hadoop World, New York, 2012, 2013.
- Completed course work for Ph.D. in Computer Science, University of Maryland, Baltimore County, 2004-07.
- Completed three courses in Post-Graduate Certificate in Computer Science, Johns Hopkins University, 2001-03.
- Defense Language Institute, Korean Basic Course. Graduated with Provost Award. 1996-97.
- Master of Science in Computer Science, University of Texas, Austin. Attended on full scholarship from University of Texas Applied Research Laboratory and graduated with 3.7 GPA in 1996.
- Bachelor of Science in Computer Science, U.S. Naval Academy, Annapolis. Graduated 23rd of 880 graduates with a 3.7 GPA in 1994.
- Honor Graduate of U.S. Navy Data Systems Technician school for computer hardware in 1988.
- Graduated from German High School in 1988. Schoenborngymnasium, Bruchsal, Germany. Abitur.

Employment History

- Senior Software Developer, Department of Defense (DOD), 2009-present.
- Senior Professional Staff, The Johns Hopkins University Applied Physics Laboratory, 2003-09.
- Senior Software Engineer II, Raytheon, 2001-03.
- Officer, U.S. Naval Cryptology, 1994-June 2001.
- Midshipman, U.S. Naval Academy, Annapolis, MD, 1990-94.
- Enlisted, Data Systems Technician, U.S. Navy 1988-90.

Additional Skills, Qualifications and Professional Membership

- Top Secret/SCI clearance based on SBI and polygraphs.
- Bilingual native German speaker (Defense Language Proficiency Test Listening/Reading 3/3, 2010).
- Sun-certified Programmer for the Java 2 Platform, 2000.
- Association for Computing Machinery (ACM) lifetime member.
- Certified Scrum Master (CSM), Scrum Alliance, 2013.