**Michael J. Dalpee**

# QUALIFICATION SUMMARY

Forty years of diverse experience covering software engineering, sys­tem engineering, product development, technical management, and busi­ness management, and entrepreneurship.

# SECURITY CLEARANCE

Active TS/SCI w/ Lifestyle Polygraph

# EDUCATION

Master of Science in Computer Science, University of Maryland, 1983

Bachelor of Science in Electrical Engineering, University of Maryland, 1977

**CLASSES/CERTIFICATIONS/AWARDS**

“Beyond RPC: The Virtual Network”, *IEEE Parallel & Distributed Technology,* November1993, pp.41-57

Cited for having made important contributions in Acknowledgement section of Grady Booch’s book Object Solutions (Pearson Education; 1st edition, October 12, 1995)

Customer Letter of Appreciation, ROCKBOTTOM program, 1999

**TECHNICAL SKILLS**

**Applications:** Eclipse (MyEclipse, JBoss Developer), Netbeans, ClearCase, Visual C++, DOORS, Rational ROSE, X-Designer

**Programming Languages/Databases:**C++, Java, Ada, C, FORTRAN, SmallTalk, PL/1, SNOBOL, ASSEMBLY, Postgres, MySQL, Sybase, Oracle, RdB, Ingres

**Operating Systems:** Linux, UNIX, VMS, AOS, RDOS, CPR, EXEC 8, RSX 11, TOPS 10, DOS, Microsoft Win­dows

**Hardware:** Sun, Alpha, Silicon Graphics, VAX, Macintosh, PDP, Data General, UNIVAC, Sigma, AN/YUK, i960, x86

**Technologies/Frameworks/Platforms/Standards:** SOLR/LUCENE, Swing, Motif, OPENLOOK, MFC, DEVGUIDE, TCP/IP, NSAM 81-3, MIL STD 490A, MIL STD 2167A, CORBA (Orbix, Orbacus), Message-oriented Middleware, Network Broker, Pthreads

**Java APIs:** JEE 7, JAX-RS, JSF/AJAX, JPA/JDBC, CDI, JNI, JAAS

**IDEs:** MSVS, Netbeans, Eclipse, JBOSS Development Studio, Rational Rose

# PROFESSIONAL EXPERIENCE

**09/16 – Present, Retired.**

***Looking for a Principal Engineering and/or Technical Management Position on a challenging System Development activity in the Charleston, SC area.***

**10/98 – 09/16, Engineering Solutions, Inc.**

***Executive Vice President, Chief Technical Officer, Co-founder, Principal System/Software Engineer***

* ROCKBOTTOM
  + Distributed system providing store and forward capabilities for high-speed, high-priority signal data collected by a variety of satellite modems
  + Chief Architect, Object-oriented Mentor, main software developer, and Project Manager since 1996
  + Implemented using Red Hat, Solaris, Digital Unix, C++, Motif, X-Designer, Pthreads, CORBA, VME device control, and Clearcase
  + Comprised of over 400,000 lines of highly-resuable C++ code
  + Authored majority of code, including: Pthreads encapsulation, VME device encapsulation, Smart-pointer encapsulation, CORBA Publish/Subscribe encapsulation, Configuration Parameter Manager, Task Status, Task Scheduler, Task Monitor, Mission-specific Tasks, Equipment Manager, Equipment Controller, Postgres API, and CORBA Valuetype API/Implementation generator
  + Successfully deployed to multiple CONUS/OCONUS field sites, achieving high customer praise for reliability and usability
  + Created Swing/CORBA Java application to allow direct control of satellite modems to support field testing
  + Made numerous field site trips to support installation, test, and training activities
  + Implemented web interface to replace Motif GUI using JEE-7 (JSF,JPA/JDBC,CDI,JAAS), Wildfly, and JBOSS Developer
* EStaff
  + ESi-proprietary JEE application to automatically rank job-applicant resumes against contract position requirements using the SOLR/LUCENE search engine and MYSQL database.
  + Created SOLR SearchComponent plugin to implement EStaff-specific relevancy scoring algorithm
* Cyber Security IR&D
  + Used IDA Pro to perform static analysis of X86 MSVC C++ disassembly as well as dynamic analysis using IDA Pro debugger
  + Created a C#/WPF/XAML tool using MS Visual Studio that searches the memory of a target process for matches against value arrays of arbitrary primitive data types (strings, integers, floats)
  + Created a multi-algorithm cipher method that hardens cipher text against 3rd party analysis. Implemented using MSVS 2015/C++/WUP.

**5/96 – 10/98, Advanced Software Enterprises, LLC**

***President and Founder (became Engineering Solutions, Inc.), Principal System/Software Engineer***

* ROCKBOTTOM (started in 1996 – see description under Engineering Solutions, Inc.)
* REISLING
  + Software development SETA support
  + Critiqued the software design and documentation
  + Acted as the government’s software representative at technical meetings
  + Assisted in evaluating acceptance test activities for requirements compliance
* NITELIGHT
  + COLDWAVE
    - Small distributed system providing interactive remote control of signal processing equipment
    - Responsible for the management, design, and implementation of the complete system
    - Implemented using Motif, Builder Xcessory, TCP, Telnet, Solaris 2.5/SunOS 4.1.4, and the C programming language

**6/94 – 5/96, Rational Software Corporation**

***Software Engineering Specialist***

* Provided software consulting services to various NSA cli­ents
* Helped organizations transfer to object-oriented technology
* Mentored and trained object-oriented development and program management techniques
* Demon­strated Rational’s software engineering environment, layered products, and tools
* Reviewed the draft manuscript of Grady Booch’s Object Solutions; acknowledged in published book as having made useful suggestions for improving the book’s technical content

**12/93 – 6/94, Computer Sciences Corporation**

***Executive Scientist***

* IADS (Icelandic Air Defense System)
  + State-of-the-art network management system for a sophisticated telecommunication network
  + Provided senior technical consultative support to Ada software development effort

**5/92 – 12/93, IDEAS, Inc.**

***Director of Software Engineering***

* Network Broker
  + Commercial distrib­uted computing middleware product
  + Proposed and spearheaded the effort
  + Ada-based distributed interprocess communication product that provides an enhanced client/server model called the Virtual Network
  + Described in “Beyond RPC: The Virtual Network”, *IEEE Parallel & Distributed Technology,* November1993

**7/91 – 6/92, Logicon Ultrasystems**

***Vice President and General Manager, Maryland Operations***

* Responsible for technical and business management of 4 NSA contracts
* GARNET
  + SIGINT System modeling and simulation system
  + Performed engineering analysis of GUARDRAIL and TR-1/U2 communications payloads to design discrete event models of their signal collection capabilities
  + Implemented on DEC VAX/VMS using Ada and Ingres

**9/90 – 7/91, Advanced Computer Enterprises**

***President and Owner***

* Founder of ACE, a technical consulting firm (bought by Logicon Ultrasystems)
* MINSTREL
  + Digital voice transcription and storage system
  + Analyzed system performance problems and recommend performance enhance­ments
  + Eliminated inefficient use of Ada or VMS features, reworked inefficient application algorithms, tuned VMS system parameters, wrote VMS device drivers, and investi­gated system architecture performance bottlenecks
  + Implemented on DEC VAX/VMS using Ada and Sybase

**2/83 – 9/90, HRB Systems**

***Senior Staff Engineer***

* CAPLOCK Phase 2
  + Responsible for program and technical management of 40 people
  + Significantly expanded the capacity of the Phase 1 system
  + Migrated to a more Open Systems implementation by employing technology such as X-Windows, the Sybase RDBMS, TCP/IP, and a network-transparent client/server communication architecture
* CAPLOCK Phase 1
  + Small mission signal collection system
  + Responsible for program and technical management of 25 people
  + Grew from a two-person SETA task into a twenty five-person software support services contract
  + Designed and developed a Graphical User Interface development toolkit for use with DEC UIS
  + Implemented in Ada using VAXstation II/GPX workstations running VMS and networked via DECNET to a cluster of VAX 8350s

**11/80 – 2/83, HRB Systems**

***Maintenance Software Engineer***

* MAROON ARCHER
  + Responsible for maintaining FORTRAN and ASSEMBLY software running on Data General Eclipse 350 minicomputers
  + Solved a complex system problem that resulted from the improper syn­chronization of shared memory access between concurrent processes

**6/74 – 11/89, Prior Experience**

***Software Engineer***

* Worked as a Software Engineer for the Naval Research Laboratory, Vitro Labs, Technicolor Graphics Services, and Rockwell International