Curriculum Vitae for Brian Bissett
Document Contains (in Order):
Resume
Publications List
Cover Letter
Transcripts

Brian Bissett
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Waterford CT 06385-2822

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Citizenship: United States
Highest Clearance Held: Secret

Email:
brian.bissett@yahoo.com

Education:

MSEE 2001	(3.83/4.00)	Rensselaer Polytechnic Institute, Troy NY
MBA 1998	(3.89/4.00)	Rensselaer Polytechnic Institute, Troy NY
BSEE 1992	University of Rhode Island, College of Electrical Engineering	

Publications:

Automated Data Analysis with Excel, Textbook
Chapman & Hall 2007, ISBN 9781584888857, Softcover - 442 pages.

Practical Pharmaceutical Laboratory Automation, Textbook
CRC Press 2003, ISBN 0849318149, Hardcover - 464 pages.

Summary: Technical MBA with over 15 years of experience in design and development engineering seeks principal engineer/scientist or program management position within a Fortune 500 Company or government research laboratory (GS14/15). Extensive experience in the development, deployment, integration, and configuration management of hardware, software, and instrumentation to successfully construct customized electronic instrumentation systems.

Engineering Skills: Analog Circuit Design, Digital Circuit Design. Specific experience in the design and implementation of Application Specific Integrated Circuits (ASIC), Field Programmable Gate Arrays (FPGA), and Programmable Array Logic (PAL). Assembly, test, and rework of electronic and prototype circuitry. Fluent in the use of electronic design automation tools including schematic capture, digital circuit simulation, timing analysis, and programmable logic implementation. Use of CAD software packages to facilitate engineering designs.

Programming Languages:
Fluent In: Microsoft Visual Basic, Excel Visual Basic for Applications, Origin Labtalk (subset of “C”)
Experienced With: “ C++ ” (Borland), Perl, HTML, Java, SQL, Oracle, Fortran, Pascal
Operating Systems: Windows Vista/XP/2000, Unix, Mandrake/Xandros/Red Hat Flavors of Linux

Numeric Computation Skills: Fluent in the use of software packages such as Matlab, Excel, Lindo, Spotfire, and Origin, to perform functions such as curve fitting, linear equation solving, and linear programming.

Software Skills: Microsoft Office (Word, Excel, PowerPoint, Access), Microsoft Project (Task Lists, Critical Paths, Resource Scheduling, Leveling, Gantt Charts), Macromedia Dreamweaver (Designed and Built dynamic web page using ASP with Oracle 8.0 & Microsoft Access), and Pipeline Pilot.

8/94 - Present: Research Scientist - Pfizer Inc., Molecular Properties Group, Groton CT 06340

Scientist and Lead Engineer in the Molecular Properties Group, a subgroup of Exploratory Medicinal Sciences within Pfizer Global Research and Development. The mission of the Molecular Properties Group is to provide timely data on the drug like properties of sample compound entities obtained from both in house laboratories and externally purchased compound libraries. Early stage development parameters of specific interest include: solubility, pKa, ElogD/P, stability, permeability, and toxicity. These parameters are of importance in making early decisions on drug candidate attrition, as pursuit of drug candidates with poor molecular property profiles is less likely to result in an approvable and efficacious drug. The importance of early candidate attrition is that resources are not allocated to (and thus wasted on) compounds which have a poor probability of yielding drug like material.

Primary responsibilities included the design, development, and management of high level discovery informatics projects using industry standard benchmarking methods. System Development Life Cycle (SDLC) was used to manage software development from the initiation through disposition phases. For hardware issues, a Technical Reference Model (TRM) was utilized to allow designers, developers, and users to agree on definitions, have a common understanding of the services to be provided, and identify and resolve issues affecting interoperability, portability, and scalability prior to entering the development phase. A Capital Planning and Investment Control (CPIC) approach was used to assess, select, control, and evaluate potential products to be integrated into the system. Ensured conformance to Good Laboratory Practice (GLP), Good Automated Manufacturing Practice (GAMP), Good Manufacturing Practice (GMP), and Good Clinical Practice (GCP) as required. Certified project conformance to 21 CFR Part 11 with respect to archival of data, audit trails, time stamps, validation, and operation of closed and hybrid systems where applicable.

When a component of a project or an entire project was outsourced to a vendor, solicited Request for Proposals (RFPs). Drafted Statements Of Work (SOW) for selected contractors using either a Design/detailed specification, a Level of effort specification, or Performance based specification. All Statements of Work included Project Work Breakdown Structures (PWBS) and Contract Work Breakdown Structures (CWBS). Monitored contractor performance by means of predefined system milestones and benchmarking criteria, which if not satisfied on schedule gave the customer the option to solicit new RFP's, and ensures ownership of all materials prepared by the contractor up to the point of non delivery of the product.

Example Projects:
(1) pKa assay - consists of a plate reader to capture absorbance vs. pH data which is automatically fit to the theoretical equation for a mono pKa system using the Marquardt least squares algorithm. (2) plate reader solubility assay - captures absorbance vs. concentration data at specified pH. Computational algorithm statistically determines if light scattering present is due to particulate matter which has come out of solution. (3) turbidimetric solubility assay. Light scattering by precipitated particulate material is the basis for this assay. Assay consists of a modified Hach 2100N turbidimeter, which captures Nephelometric Turbidity Units (NTU) vs. concentration data at pH 7.0. The solubility is the highest aqueous concentration of drug (in µg/mL) at which precipitation does not occur.

Served as system integrator for hardware, software, and instrumentation developed both in house and externally to perform measurements or experiments for which there was no commercially available equipment to perform the required task.

Solved data loading problem for Compound Library Management system. Data files which accompanied purchased compound libraries varied in both type (*.csv,*.txt, *.xls, etc.) and field naming conventions. Solution required that files be field mapped to fields equivalent in nature in the Pfizer Database System. Mapping was automated whenever possible. System successfully cleared a backlog of 1 Million new compounds awaiting registration within 3 weeks.

Developed customized and robust algorithms for scientists to automate the data analysis and database uploading aspects of their job duties. Interfaced with scientists, IT team leaders, and management to develop solutions which satisfied the needs of all concerned. Created automated data analysis routines for solubility (kinetic and thermodynamic), pKa, permeability, ElogD/ElogP, and stability. These programs are utilized worldwide across five Pfizer sites: (Groton CT; Sandwich UK; Ann Arbor MI; La Jolla CA; Nagoya JP).

Worked with Pfizer's Legal Department in New York City and the private law firm of Bryan Cave to construct patents to protect Pfizer's intellectual property in areas such as assay design and development, method development, process control, instrumentation, and experimental designs.

Team Leader for outsourcing and offshoring various functions within the global research and development division including drug screening processes, robotic automation, instrumentation, and custom electronic interfaces. Partnered with groups such as strategic alliances, procurement, finance, legal, and human

resources to set up outsourcing agreements. Worked with non clinical statistics group to devise studies to ensure that the quality level of outsourced functions were at parity or exceeded performance that could be delivered internally. Typical funding levels for outsourcing activities were $250,000 to $500,000 per quarter. Experience with both domestic and international (China) outsourcing.

2/90 - 8/94
Electrical Engineer - Naval Undersea Warfare Center (NUWC), New London, CT. Position initially started as co-op while in college and developed into a permanent contract position upon graduation.

In support of the Microelectronics Branch (permanent) provided support in electronic circuit design, analysis, fabrication, testing, and documentation for the New Sonar Intercept System (NSIS), a high speed data acquisition system. Responsible for the design and development of high speed (20 MHz - 1 GHz) communication cards.

Performed “burn in” testing of assembled electronic circuit cards at an elevated temperature for a specified number of hours (MIL-STD-883, Method 1015: 160 hrs @ 125 °C), with bias and an electrical load applied, in an attempt to stress all elements within the circuit card at maximum rated operating conditions in order to reveal all stress and time dependent failures (or so called infant mortality).

Conducted noise testing of analog hybrid preamplifiers for towed arrays utilizing spectrum analyzers. Experience in the assembly of hybrid microelectronic circuits including gold ball wire bonding to interconnect a chip to a substrate, a substrate to a substrate, or a substrate to a package to create a multi chip module (MCM). Encapsulation of hybrid microelectronic circuit dies utilizing “glop top” epoxies.

In support of the Experimental Tests and Measurements Branch (co-op): Assisted in the setup and execution for numerous experiments to test the transient response of structures and materials to vibration and shock (MIL-STD-1540C – one third octave power spectrum). Collected data for numerous experiments in areas such as vibration, resonance, noise, shock, and calculation of the natural frequency. Created a new instrument control panel for the Henry & Wright shock table which was utilized to create a resonance, vibration, and shock profile for various antennas prior to installation on Naval vessels.

Wrote programs to automate plotting of test data from a Hewlett Packard spectrum analyzer over an HP-IB Bus. Developed programs to simulate the vibration of solid enclosures using the finite element method, and to decimate shock test data samples.

Professional Memberships:
IEEE
IEEE CT Consultants Network
IEEE Engineering in Medicine and Biology
IEEE Instrumentation and Measurement Society
AAPS American Association of Pharmaceutical Scientists

Brian D. Bissett
List of Publications, Presentations, and Patents.

Practical Pharmaceutical Laboratory Automation, Textbook
CRC Press 2003, ISBN 0849318149, Hardcover - 464 pages.

Automated Data Analysis with Excel, Textbook
Chapman & Hall 2007, ISBN 9781584888857, Softcover - 512 pages.

Patent – Addressable Location Indicator Apparatus and Method
Issue Date: March 28, 2006, Patent# 7,019,634

Patent - Automated Kinetic Solubility Assay Apparatus and Method
Filed Oct 18 2002 – Application Number 20040076546

"Advanced Excel Technologies in Early Development Applications", Short Course, International Symposium on Laboratory Automation and Robotics (ISLAR 2003), Boston, MA.

"Development of Pfizer's 3rd Generation Turbidimetric Solubility Assay.", Invited Podium Presentation, International Symposium on Laboratory Automation and Robotics (ISLAR 2002), Boston, MA.

"Automating pKa Curve Fitting Using Origin", Case Study, Microcal Software, March 24, 2004.

"ADME in the HT Era: Part 1. – 'Agilent Chemstation Macro Programming'" Invited short course presented at the CPSA Symposium in Princeton, NJ, on October 7 2002. Collaborative effort with Franco Lombardo, R.S. Obach and Marina Shalaeva.

"ElogD(7.4) One Year Later: A Good Method Gets Better.", Shalaeva, M., Lombardo F., Bissett, B. Poster presented at the EUROQSAR 2002, Bournemouth, U.K., September 9-13, 2002.

Physicochemical and Biological Profiling in Drug Research, Book Chapter, "ElogD(7.4) 20,000 Compounds Later: Refinements, Observations and Applications", Franco Lombardo, Marina Y. Shalaeva, Brian D. Bissett and Natalya Chistokhodova.

"Automating Data Analysis in Early Development Applications", Invited Presentation, Conference on Chromatography Validation and Methods Development, Philadelphia, PA, June 23 – 24, 2005.

"Development of Pfizer's Third Generation Turbidimetric Solubility Assay - An Engineering Perspective.", Invited Presentation, Conference on Bioanalytical Methods, Philadelphia, PA, June 27 – 28, 2005.

"Streamlining Molecular Properties Determinations Using Custom Automated Data Analysis Tools.", Brian Bissett, C4 Symposium (Computational Chemistry Coordination Council), Groton, CT, October 23 – 27, 2006.

"Automating Data Analysis with Excel VBA Macros", Instructor - Power2Learn Class, October 23, 2007, New London, CT.

"Making Open Access Instrumentation Open to All", Invited Presentation, Bridging Pharma and IT Conference, Cambridge Healthtech Institute (CHI), October 28-30, 2008, Providence, RI

September 26, 2008

Subj: Employment Opportunities for Scientists and Engineers.

Dear Recruiting Coordinator,

I began my engineering career with an internship program at the Naval Undersea Warfare Center (NUWC) while attending the University of Rhode Island where I obtained a Bachelors degree in Electrical Engineering. I further went on to earn a combination MBA and MSEE from Rensselaer Polytechnic Institute.

As my resume illustrates, I have a combination of fourteen years experience which spans working for both civil service government organizations, and at one of the top 50 Fortune 500 corporations. It is my hope that my collective experience working both as a scientist at Pfizer (the worlds largest pharmaceutical company), and as a contract engineer for the Naval Undersea Warfare Center, has provided me with the broad based background I believe you are seeking in recruiting for external positions.

My objective is to find a progressively more responsible design engineering or engineering management position to which my skills set would allow me to make the maximum contribution to the organization that I am joining. Ideally, such a position would involve a satisfactory ratio of both contribution and learning, which tends to keep both the employer and the employee happy.

One additional factor which may be of interest to you that is not reflected in my resume is that I am currently enrolled in a Ph.D. program in Electrical Engineering at the University of Rhode Island studying under Dr. James Daly.

It is my hope that my resume conveys one common thread throughout my career, which is that I am both an administrator and a problem solver. Ideally, I would be willing to relocate anywhere within CT and RI area, or from Delaware to Florida on the eastern seaboard of the United States.

With the scarcity of degreed engineers who are both United States citizens and have held a secret clearance, it is my sincerest hope that you will be interested in the qualifications set forth in the enclosed resume.

If any situations should come to mind where you think my skills and background would be particularly suited to a specific position, or if you have any suggestions as to others with whom it might be beneficial for me to speak with, I would appreciate hearing from you. I can be reached at the contact information below and on my resume.

Sincerely,

Brian Bissett
54 Rope Ferry Road Unit B-26
Waterford CT 06385-2822
860 447 2421 Eve
860 715 0845 Day

Rensselaer Polytechnic Institute
Student Name: Brian David Bissett

Student Number: 660111177

8/27/2004

DEGREES AWARDED: DATE:
Master of Bus. Admin. *December 1998*
Major: Management
Master of Science *May 2001*
Major: Electrical Engineering

Unofficial Transcript

BRIAN D BISSETT
54 ROPE FERRY RD
UNIT B-26
WATERFORD. CT 06385-2822

Advisor(s)fType:
Brown, Roger/MAJR

Course #	Course Title	Att	Grd	Em	is
	Graduate Academic Record				
	Fall 1995				
	Non-Degree Seeking				
	Undeclared Major				
MGMT 6700	ORGANIZATIONAL BEHAVIOR	3	B	3	9
	ATT ERN	QHR QPTS		GPA	
Term	3 3	3 9		3.00	
Cumulative	3 3	3 9		3.00	
	Spring 1996				
MGMT 6190	FINAN & MGRL ACCOUNTING	3	A	3	12
	ATT ERN	QHR QPTS		GPA	
Term	3 3	3 12		4.00	
Cumulative	6 6	6 21		3.50	
	Summer 1996				
	Master of Bus. Admin.				
	Management (Renssel@Hartford)				
ZSMI 6110	INTRO STATIST METHODS	3	B	3	9
	ATT ERN	QHR QPTS		GPA	
Term	3 3	3 9		3.00	
Cumulative	9 9	9 30		3.33	
	Fall 1996				
ECON 6490	INTRO ECONOMIC THEORY	3	A	3	12
MGMT 6340	FINANCIAL MANAGEMENT	3	A	3	12
	ATT ERN	.QHR QPTS		GPA	
Term	6 6	6 24		4.00	
Cumulative	15 15	15 54		3.60	

Course #	Course Title	Att	Grd	Ern	is
	Spring 1997				
MGMT 8030	ADVANCED FINANCIAL MGMT	3	A	3	12
MGMT 8320	ADV COMP APP FOR MGRS II	3	A	3	12
	ATT ERN	QHR QPTS		GPA	
Term	6 6	6 24		4.00	
Cumulative	21 21	21 78		3.71	
	Summer 1997				
ZSMI 6240	QUALITY CONTROL & MGMT	3	A	3	12
	ATT ERN	QHR QPTS		GPA	
Term	3 3	3 12		4.00	
Cumulative	24 24	24 90		3.75	
	Fall 1997				
MGMT 6160	NEW VENTURES	3	A	3	12
MGMT 6500	MKTG AND PRODUCT MGMT	3	A	3	12
	ATT ERN	QHR QPTS		GPA	
Term	6 6	6 24		4.00	
Cumulative	30 30	30 114		3.80	
	Spring 1998				
MGMT 6110	STATS & OPS MGMT II	3	A	3	12
MGMT 6800	ETH,POL,&LEGAL CONT BUS	3	A	3	12
	ATT ERN	QHR QPTS		GPA	
Tern	6 6	6 24		4.00	
Cumulative	36 36	36 138		3.83	
	Summer 1998 Hartford				
MGMT 6651	TECH & COMPETITIVE ADV	3	A	3	12
MGMT 7940	CULMINATING EXPERIENCE	1	A	1	4
	ATT ERN	QHR QPTS		GPA	
Term	4 4	4 16		4.00	
Cumulative	40 40	40 154		3.85	

Student Name: Brian David Bissett

Student Number: 660111177

Unofficial Transcript

Course #	Course Title	Att Grd	Em	is
	Fall 1998 Hartford			
MGMT 6450	MFG. SYSTEMS MANAGEMENT	A	3	12
MGMT 6720	DEVELOP & STAFF ORG II	A	3	12
	ATT ERN QHR QPTS GPA			
Term	6 6 6 24 4.00			
Cumulative	46 46 46 178 3.86			
	Summer 1999 Hartford			
ECSE 6560	DIGITAL COMMUNICATIONS ENGR	A	3	12
	ATT ERN QHR QPTS GPA			
Term	3 3 3 12 4.00			
Cumulative	49 49 49 190 3.87			
	Fall 1999 Hartford			
	Master ofScience			
	Electrical Engineering			
ECSE 6410	ROBOTICS & AUTOMATION	A	3	12
	ATT ERN QHR QPTS GPA			
Term	3 3 3 12 4.00			
Cumulative	52 52 52 202 3.88			
	Spring 2000 Hartford			
ELSE 7010	FIBER OPTICS	A	3	12
	ATT ERN QHR QPTS GPA			
Term	3 3 3 12 4.00			
Cumulative	55 55 55 214 3.89			
	Summer 2000			
ECSE 6961	ANTENNA ELECTRODYNAMICS	A	3	12
	ATT ERN QHR QPTS GPA			
Term	3 3 3 12 4.00			
Cumulative	58 58 58 226 3.89			
	Fall 2000 Hartford			
ELSE 6400	SYS ANALYSIS TECHNIQUES	B	3	9
	ATT ERN . QHR QPTS GPA			
Term	3 3 3 9 3.00			
Cumulative	61 61 61 235 3.85			

Course #	Course Title	Att Grd	Em	is
	Spring 2001			
ECSE 6964	ELECTROMAGNETIC COMPAT	A	3	12
	ATT ERN QHR QPTS GPA			
Term	3 3 3 12 4.00			
Cumulative	64 64 64 247 3.85			
	Spring 2001 Hartford			
ECSE 6660	BROADBAND NETWORKS	B	3	9
ECSE 6900	SEMINAR in ECSE	0 S	0	0
	ATT ERN QHR QPTS GPA			
Term	3 3 3 9 3.00			
Cumulative	67 67 67 256 3.82			
	Transcript Totals:			
	ATT ERN QHR QPTS GPA			
Institution	67 67 67 256 3.82			
Overall	67 67 67 256 3.82			