

## SUMMARY OF QUALIFICATIONS:

- Hand selected to conceive, design, and execute IBM's world-wide "ThinkPlace Catalyst" innovation program. Led the program for 5 years resulting in \$700M ROI.
- Experienced leader of both large and small teams on both sustained and short-term projects, including technical mentoring of 4-person, rapid-prototyping teams (18 "Extreme Blue" projects per year) to creating and sustaining ThinkPlace from inception to close (a 5-year, 1,300 member innovation community).
- Proven ability to partner with key business stakeholders, from hand-crafting innovation projects for the VP of IBM strategy, to co-inventing the "Extreme Blue for Clients" program which extended the Extreme Blue model to incorporate business partners directly into the innovation prototyping process (including addressing IP legal concerns).
- Demonstrated creative ability: Computer Science Ph.D.; founder of 2 start-up companies; NASA Inventor of The Year.
- Deep experience in all aspects of innovation including: idea creation, patenting, budgeting, strategy, marketing, fund raising, implementation, sales, business plan development, staffing & recruiting.
- Broad management experience, both virtually and in-person: ThinkPlace required coordination across 39 countries and included travel to Europe, Canada, and Asia.
- Accomplished educator/communicator, including the ability to deliver award-winning motivational presentations and the ability to drive innovation even in challenging business environments (grew innovation at IBM, even during downturn of 2009). Former adjunct professor at The University of Texas at Austin. Author of 2 books and numerous publications.
- Experienced communications partner: co-developed innovation messaging with a 10-member France-based communications team with virtual connections to 60 countries world-wide.

## PATENTS & NATIONAL AWARDS

National Innovation Initiative (see "Innovate America" report at [www.compete.org](http://www.compete.org)) – member of national committee producing innovation policy recommendations for the White House, 2004.

Best Research of the Year Award, National Conference on Artificial Intelligence (AAAI), August 1996.

Top 10 Presentation, "Work-Life for High Performers," IBM Global Technical Leadership Exchange, April 2008.

NASA Inventor-of-the-Year Award, April 1995.

### Patents:

"A System and Method for Dynamic Knowledge Generation and Distribution," September 2001, no. 6292792;

"General Architecture for Intelligent Training Systems," January 1994, no. 5311422;

"Up-Front Load Balancing for Local Memory Parallel Processors," April 1990, no. 4920487;

"Developing and assuring policy documents through a process of refinement and classification," June 2009, no. 7552472  
7 additional patents developed at IBM, currently filed and pending with USPTO.

## EDUCATION & CERTIFICATIONS

### University of Texas at Austin:

Ph.D., Department of Computer Sciences, December 1994.

M.S., Department of Computer Sciences, May 1993.

### Harvard University:

A.B., Computer Science Engineering, June 1984

**SPHR (Senior Professional in HR) Certification:** June 2010

*Memberships and Interests: Austin Rotary Club, AHRMA, Marathons, P90X, College Basketball*

## EMPLOYMENT

**Chief Architect for Innovation, Organizational Change Mgmt. Ctr. of Excellence, IBM, Austin, TX** 3/11 – present

Leading a team to design and deliver on-line Change Management tools to IBM managers world wide. Will be first-ever tool suite to combine both single change initiative support and also portfolio (i.e. company-wide) analytics that measure and track the impact of multiple changes across the enterprise. Created an architecture which combines form-based web applications (in Nitro), analytics (in SPSS and Cognos), mashups (in Mashup Center) and a data warehouse (in DB2). Tools are delivered on corporate intranet via wiki (in Connections). Leading a US, Mexico, and China based development team to deliver the tool suite. Expect patent submission on overall design.

**Program Director, Innovation Analytics, IBM CIO Office. IBM, Austin, TX** 1/10 – 3/11

Led new research program using business analytics to measure the value of IT innovations. Created first-ever proof-of-concept that has successfully (i.e., statistically) linked employee performance to the use of specific innovations. Built end-to-end automation to enable expanded research on a large scale (a portfolio of 200 innovations).

**World-Wide Program Director, ThinkPlace. IBM, Austin, TX** 2/05 – 12/09

Created and led community of 1,000 innovation “catalysts” from 39 countries (including the Americas, Europe and Asia) for IBM’s “ThinkPlace Catalyst” innovation program. Catalysts were responsible for driving innovation across the company and measured on maintaining a pipeline of bottom line results including new revenues, cost savings, and productivity enhancements. Implemented reward tracking process for all innovations, ensuring that all recognition and ROI statements could be tied to manager-validated impact. Designed the Catalyst model elements from scratch, built and led the community from inception to program close at end of 2009. Results: \$700M in projected impact and a 12X ROI.

**Manager of Innovation Projects. IBM Extreme Blue Program, Austin, TX** 1/03 - 2/05

Worldwide responsibility for selling innovation projects for the Extreme Blue program ([www.ibm.com/extremeblue](http://www.ibm.com/extremeblue)). Responsible for annual sales quota of \$2M. Extreme Blue is a top talent innovation/recruiting/retention program that explores emerging business ideas from inside IBM and staffs them with summer interns from top tier universities. Each project must be funded by selling to an internal IBM executive. Grew program from 18 to 36 annual projects, doubling the number of top talent interns recruited to IBM. Hand-crafted innovation projects for the VP of IBM strategy. Co-invented the “Extreme Blue for Clients” program which extended the Extreme Blue model to incorporate business partners directly into the innovation prototyping process (including addressing IP legal concerns).

**Strategist. IBM Research – Accessibility Center, Austin, TX** 3/02 - 1/03

Responsible for setting private sector strategy for IBM to take advantage of new Federal Legislation Section 508 (part of a 3-person team). Section 508 requires all Federal Government contracts to purchase Information Technology (IT) that is accessible by disabled persons.

**Senior Technical Officer. IBM Extreme Blue Program, Austin, TX** 6/01 - 3/02

Senior technical staff member of IBM’s Extreme Blue program ([www.ibm.com/extremeblue](http://www.ibm.com/extremeblue)). Extreme Blue is an incubator/recruiting program that takes new ideas from inside IBM and staffs them with summer interns (3 technical interns and 1 MBA intern). At summer’s end, projects are pitched to senior IBM executives. Was recruited by IBM to help shape the newly-formed Extreme Blue lab in Austin. Responsibilities included: innovation development and evaluation; contribution to technical designs; patent submission & defense; technical mentoring & management of student projects; recruiting top talent at universities to fill intern position; mentoring interns on job placement within IBM after internship.

**Founder & CEO. Intelligent Learning Systems, Inc., Austin, TX** 3/97 - 6/01

President, CEO and founder of e-Learning startup company ([www.intellilearn.com](http://www.intellilearn.com)). Raised over \$500,000 in startup funds. Conceived, co-developed, patented and managed the production of *QuickStudy*, server-based, thin-client software for delivering instruction over the Internet through a standard web browser. Additional responsibilities included: business plan development, strategic planning, project management, marketing, web page development, product positioning, pricing, sales, networking, fundraising, and board member recruitment.

- Programmed extensively in: server- & client-side Java, Java Servlets, CSS, JDBC/SQL, Javascript, JScript, HTML.

**High-Performance Work Culture Training.** Founder & CEO, Dr. WorkLife Corp., Austin, TX 6/01 - present

Provide employee and leadership training, seminars, and workshops on work-life balancing for high-performance cultures. Focus is on sustainable, bottom-line impacts. Results consistently show 10% productivity improvement, 30% reduction in turnover, 60% innovation improvement, and a minimum of 2X ROI (return on investment). Created curriculum of courses, delivered training, and validated efficacy of training methods in 13 different countries. Delivered to 27 clients, among which was a world-wide launch at IBM.

**Adjunct Assistant Professor.** Dept. of Computer Sciences, Univ. Texas at Austin 8/97 - 6/98

Taught Programming Languages: a survey of significant concepts underlying modern programming languages, including syntax, parsing, scope, functions, relations, expressions, types, assignment, procedures, pointers, encapsulation, classes, templates, garbage collection, and inheritance, with some discussion of implementation issues. Examples of prominent programming paradigms included sequential, concurrent, object-oriented, and functional.

- Languages covered: C++, C, Ada, Modula-2, Java, Haskell.

**Consultant, Software Development.** SciComp, Inc., Austin, TX 1/97 - 6/97

Software contractor for SciComp (see below) as I worked to raise start-up funding for my first company, Intelligent Learning Systems (see above).

**Systems Developer.** SciComp, Inc., Austin, TX 1/95 - 1/97

Member of SciComp (a start-up company) core development team for *SciNapse*, a software synthesis tool for generating C source code programs from brief mathematical specifications. Technical projects included object system redesign/cleanup, inheritance algorithm implementation, interface language design, parser implementation, help system implementation, automatic documentation generator. Additional responsibilities included advertising and web page design and development.

- Programmed extensively in: Mathematica, C, CGI, HTML.

**Ph.D. Research Assistant.** University of Texas at Austin, TX 8/90 - 1/95

Researched dissertation topic and developed the *ASSERT* program: machine learning software for automatic modeling of student misconceptions. Published papers and gave presentations, reviewed paper submissions for major conferences. Teaching Assistant for introductory Pascal and C++ programming. Responsibilities included preparing and delivering lectures, grading assignments, and helping students in the laboratory.

- Programmed extensively in: Common Lisp, C++, C

**Sr. Software Engineer & Instructor.** GHG Corporation, Houston, TX 9/89 - 8/90

Major projects included: (1) **Language Translation:** Lead programmer for ETM Generator program which automatically translates old NASA FORTRAN code into a rule-based language for use in large-scale simulations. (2) **X-Windows:** Co-developer and instructor of course on *Xt Intrinsic*s with the *Motif* Widget set. Managed purchase of computer equipment for course laboratory exercises. Course turned profit within 1 year. (3) Sole developer and instructor of a short course on X-Windows for systems managers.

- Programmed extensively in: C, X-Windows (*Xt Intrinsic*s, *Motif*).

**Software Engineer.** NASA Johnson Space Center, Houston, TX 9/86 - 9/89

Developed artificial intelligence technologies for the NASA community using C, Lisp and the CLIPS and ART rule-based programming languages. Projects: (1) **Training and Simulation:** primary designer of training system simulating NASA mission control for flight dynamics officers comprised of four cooperating rule-based expert systems. Patent for overall design. (2) **Neural Networks:** sole designer of neural network software simulation tool sold as NASA product. Written in C, program was ported to a wide variety of machines. (3) **Parallel Processing:** implemented original design for balancing memory requirements on a parallel processor as part of a neural network project. Balancing algorithm patented. (4) **Genetic Algorithms:** developed beta version of NASA genetic algorithm software tool including original genetic algorithm specification language, parser, user interface, and genetic algorithm engine.

- Programmed extensively in: C, Common Lisp, Flavors, ART & CLIPS (AI rule-based languages).

**Compiler Design and Maintenance.** Intermetrics, Inc., Houston, TX

7/84 - 9/86

Part of a four-member team designing a new code generator for the upgraded AP-101/S flight computer used on board the Space Shuttle. Also responsible for maintenance of HAL/S-FC (Space Shuttle) compiler. Handled both routine bugs and mission critical problems.

- Programmed extensively in: HAL/S, C

## SELECTED KEYNOTES, SEMINARS & INVITED PRESENTATIONS

1. *Making Innovation Work*, Invited Workshop, Invesco, Ltd., Houston, TX, September, 2011.
2. *Making Change Work*, Invited Presentation, TMAC (Texas Manufacturing Assistance Center), August, 2011.
3. *Great-Place-To-Work Leadership Class*, World-Wide Executive Briefing Centers Team (US, UK, Italy, Germany, France, India, Poland, and Canada), IBM, July-August, 2010.
4. *Work-Life and High-Performance Selling*, Invited Workshop, IBM Mainframe Sales Team, Atlanta, GA, April 2010.
5. *Work-Life for Business Leaders*, Executive Team Briefing, Chuy's Restaurants, Austin, TX, October 2009.
6. *Building a High Performance Innovation Culture*, Executive Briefing, eBay, September, 2009.
7. *Work-Life Group Training – Management and Employee Pilot Study*, Blue Cross & Blue Shield of Florida, July – September, 2009.
8. *Work-Life for Business Leaders*, Invited Workshop, Velocity Credit Union, Austin, TX, August, 2009.
9. *Building an Innovative Culture*, Executive Briefing, Wells Fargo Bank, August, 2009.
10. *Work-Life Balance in Recessionary Times*, Invited Workshop, Workforce Solutions-Capital Area, Austin, TX, June, 2009.
11. *Work-Life for High Performers*, Workshop, Air Products and Chemicals, Inc., Allentown, PA, May, 2009.
12. *Corporate Survivor: Work-Life in Recessionary Times*, Invited Speech, National Association of Real Estate Investors (NARI), Austin, TX, April, 2009.
13. *How Work-Life Creates High Performance*, Invited Workshop, Valero Energy Corporation, San Antonio, TX, December, 2008.
14. *Work-Life for High Performers*, Invited Webcast, IBM Academy of Technology, July 2008 (**note** re-presentation of award-winning presentation at IBM Technical Leadership Exchange, Orlando, April 2008. Audience size 14,000).
15. *Work-Life and Developing an Innovative Culture*, Customer briefing, Goddard Space Flight Center, April, 2008.
16. *Work-Life and Developing an Innovative Culture*, Keynote, Enterprise Architecture Executive Council, New York, January 2008.
17. *Work-Life and Developing an Innovative Culture*, Invited Speech, Clarkson University Engineering Department Staff, January 2008.
18. *Balance Seekers Workshop*, All-Day Seminar, *Working Mother Magazine*, New York, December 2007.
19. *Stress Reduction Strategies for BMC's ERP Installation*, Invited Speech, BMC Software Corp, Houston TX, October 2007.
20. *Work-Life and Innovation Capacity*, Keynote, Ireland Annual Innovation Awards, Dublin, Ireland, May 2007.
21. *Work-Life Balancing*, Seminar, Texas American Heart Association Annual Meeting, Austin TX, July 2006.
22. *National Innovation Initiative Overview*, Invited Speaker, Semiconductor Industry Quarterly Meeting, St. Regis Hotel, Washington D.C., March 16, 2005.
23. *Capitalizing on Innovation at IBM*, Invited Speaker, Society of Hispanic Professional Engineers, Dallas, TX, January, 2005.
24. *Capitalizing on Innovation at IBM: The Extreme Blue Program*, Invited Speaker, The Association for Computing Machinery (ACM) World-wide programming contest, Prague, Czech Republic, March, 2004.
25. *Extreme Blue Innovation*, Invited Presentation, Northwestern University Corporate Innovation Seminar Series, Northwestern University, Chicago, June, 2003.

## SELECTED PUBLICATIONS

### Books

1. Baffes, P., *Work-Life Balancing: How to be Wildly Successful at Both...Really!* Second Edition, Dr WorkLife Corp, Austin, TX, 2005-2010.
2. Baffes, P, and Dempsey, G., *Reinventing Invention*, Technology Innovation Group, Austin, TX, 2004.
3. Baffes, P.T. and Villarreal, J., "Time Series Prediction Using Neural Networks," in *Expert Systems for Civil Engineers: Knowledge Representation*, R.H. Allen (ed.), pp. 270-284, American Society for Civil Engineering, New York, NY, 1992.
4. Loftin, R.B., Wang, L., Baffes, P.T. and Hua, G., "An Intelligent Training System for Space Shuttle Flight Controllers," in *Innovative Applications of Artificial Intelligence*, H. Schorr and A. Rappaport (eds.), pp. 15-24, MIT Press, Menlo Park, CA, 1989.

### Journal Articles

5. Baffes, P.T. and Mooney, R.J., "Refinement-Based Student Modeling and Automated Bug Library Construction," *Journal of Artificial Intelligence in Education*, 7, 1, (1996), pp. 75-116.
6. Baffes, P.T. and Mooney, R.J., "Extending Theory Refinement to M-of-N Rules," *Informatica*, 17 (1993), pp. 387-397.
7. Loftin, R.B., Wang, L., Baffes, P.T., and Hua, G., "An Intelligent System for Training Space Shuttle Flight Controllers in Satellite Deployment Procedures," *Machine-Mediated Learning*, 3 (1989), pp.41-51.
8. Loftin, R.B., Wang, L., Baffes, P.T. and Hua, G., "An Intelligent Training System for Space Shuttle Flight Controllers," *Telematics and Informatics*, 5, 3 (1988), pp. 151-161.

### Articles (Conference Proceedings, Magazines, Technical Reports, White Papers)

9. Baffes, P., "Out-of-the-Box in a Box", *Innovation Matters Magazine*, vol. 2, issue 15, August 2004.
10. Baffes, P., Winters, S., and Stading, T., "Extending the Competitive Advantages of our IBM's IP Process", IBM, April 2003 (CONFIDENTIAL).
11. Baffes, P.T., "Accessing the Accessibility Market: Setting IBM's Strategy in the Wake of Section 508", IBM, March 2002 (CONFIDENTIAL).
12. Baffes, P.T. and Mooney, R.J., "A Novel Application of Theory Refinement to Student Modeling," *Proceedings of the Thirteenth National Conference on Artificial Intelligence*, pp. 403-408, Portland, Oregon, August 1996. (**best paper award**)
13. Baffes, P.T., "Automatic Student Modeling and Bug Library Construction using Theory Refinement," Ph.D. Thesis, Austin, Texas: University of Texas at Austin, December 1994.
14. Baffes, P., "Automatic Student Modeling and Bug Library Construction for Intelligent Tutoring Systems," Computer Science Education (CS-ED) group, University of Texas at Austin, September, 1994.
15. Baffes, P.T. and Mooney, R.J., "Symbolic Revisions of Theories with M-of-N Rules," *Proceedings of the Thirteenth International Joint Conference on Artificial Intelligence*, pp. 1135-1140, Chambéry, France, August 1993.
16. Baffes, P.T. and Mooney, R.J., "Symbolic Revisions of Theories with M-of-N Rules," *Proceedings of the Second International Workshop on Multi-strategy Learning*, Harpers Ferry, West Virginia, May 1993.
17. Baffes, P.T. and Zelle, J.M., "Growing Layers of Perceptrons: Introducing the Extentron Algorithm," *Proceedings of the International Joint Conference on Neural Networks*, vol. 2, pp. 392-397, Baltimore, MD, June, 1992.
18. Baffes, P., "Genetic Algorithms: An Introduction," Houston Chapter of the ACM, April 11, 1990.
19. Baffes, P., "An Introduction to Neural Network Computing using NETS," AI SIG meeting of the Houston Area League of PC Users, March, 1990.

20. Loftin, R.B., Wang, L., Baffes, P.T. and Hua, G., "An Intelligent Training System for Space Shuttle Flight Controllers," *Proceedings of the 1989 American Association for Artificial Intelligence Conference on Innovative Applications of Artificial Intelligence*, pp. 105-110, Stanford University, March, 1989.
21. Loftin, R.B., Saito, T., Wang, L. and Baffes, P.T., "Automating Knowledge Acquisition for Intelligent Training Systems," *Proceedings of the Workshop of Knowledge Acquisition*, International Joint Conference on Artificial Intelligence, Detroit, MI, August, 1989.
22. Villarreal, J. and Baffes, P.T., "Sunspot Prediction Using Neural Networks," *Proceedings of the Third Annual Workshop on Space Operations, Automation and Robotics*, NASA Johnson Space Center, Houston, TX, July, 1989.
23. Loftin, R.B., Wang, L. and Baffes, P.T., "Simulation Scenario Generation for Intelligent Training Systems," *Proceedings of the Third Artificial Intelligence and Simulation Workshop*, pp. 69-74, St. Paul, MN, August, 1988.
24. Baffes, P.T., "NETS User's Guide, Version 2.0," Technical Report JSC-23366, NASA Johnson Space Center, Houston, TX, September 1989.
25. Loftin, R.B., Wang, L., Baffes, P.T. and Hua, G., "An Intelligent Training System for Payload-Assist Module Deploys," *Proceedings of the SPIE Symposium on Advances in Intelligent Robotic Systems*, pp. 83-89, Cambridge, MA, 1987.