Brian J. Tarbox
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Summary:
Thirty-four years experience delivering mission critical systems on-time, on-target and with commercial success. Specializing in Java, Cloud, Databases, performance and robustness analysis and design. Numerous awards, presentations and publications. Amazon certified Solutions Architect – Associate.

Experience:
Cazena, Principal Software Engineer, 2015-present
Working on bringing resilience to Cazena's Data Lake product as part of the Cloud Systems Engineering team for AWS and Azure. Using Salt for cloud agnostic configuration. Have leveraged Spot and burstable instance types to reduce cloud instance costs by 23%-85%. Supporting Redshift as well as two versions of Hadoop.

Clique Intelligence, Senior Software Engineer, 2014-2015 (company folded)
Senior member of a team of designers/implementers of a platform for collaboration related applications. Focused on performance and scalability of the system as well as massive refactoring for robustness and debugability. Led an effort to use Cucumber as a vehicle for enhancing tests as well as the development of better Scrum stories. Led an effort to bring the platform to the cloud using AWS and Graph Database technology.

Cabot Research Inc, Engineer, 2012-2014
Developing big data financial analysis system based on AWS, Cassandra, and Zookeeper. In addition to development maintained the Git, Cassandra, AWS, backups and numerous other systems (seven person startup). Used an assumption that systems will fail along with heavy use of Spot Instances to design a low cost yet highly reactive platform. Have given talks and published papers on AWS topics.

Motorola Boxboro, MA, Distinguished Member of Technical Staff, 2004-2012
Systems Engineer designing the architecture of next generation three-screen video products. Two patents granted for this work with four more in process.

Technical lead for a four continent team; implemented measures to increase code quality and schedule predictability which achieved meeting project schedules on time and with high quality.
- Moved development to Spring resulting in 30% faster development cycles and reduced defects
- Twice awarded Bravo bonuses for exceptional achievements
- Reduced support costs by via a technique for automatically detecting failed streaming ports
- Developed new technique for efficient logging of Stored Procedures
- Converting team to a Test Driven Design mindset and to use of tools such as Eclipse Mylyn
- Lead effort to roll out Code Inspection tools division-wide
- Granted membership on company-wide Open Source Review Board

Built J2EE based Video On Demand Server
- Converted team methodology to Design Patterns, refactoring, best practices and TDD.
- Converted main processing path to use Stored Procedures; increased system throughput **50x.**
- Team embraced new technologies as a result of a Technical book club I organized.

Atmospheric and Environmental Research, Bedford, MA. 2001, 2002, 2003–2004
Wrote scientific analysis software for the National Polar Orbiting Earth Environmental Satellite. Designed, implemented and fielded a barcode scanner system for Logan International Airport baggage system.

Boston Atlantic Technologies, Maynard, MA, 2003
Designed and implemented J2EE data storage system for a network of blood gas analyzers. Designed distributed JMS based multi-master database synchronization scheme allowing for more flexible usage models

Sumaria Inc, Danvers, MA 2001 – 2003. *(overlapped with several offsite contracts)*
Designed/Implemented system to accept GPS inputs from Indy racecars to drive robotic cameras for real-time network TV feed using Kalman Filters and real-time interpolation to interface multiple hardware platforms

Southern Carolina Research Agency, North Charleston, SC, 2002 *(offsite contract)*
Worked on the GCCS Enterprise Management System for the Defense Department. **Secret clearance**.

Digital Equipment Corporation, (group then purchased by Tivoli Systems, Austin, TX) 1995-2000.

- Lead Engineer on components of Tivoli's next generation product line: a distributed, highly scalable, fault tolerant, Java/ORB/JMS based system.
- Project and Technical Lead for team of 7 contractors working at two sites on NetView that was purchased from Digital Equipment Corp. Enhanced discovery daemon to store up/down time data allowing generation of Quality of Service statistics. Team twice won Product of the Year awards. Three patents for my work on this project.
- Finished port of Polycenter NetView network management system to Windows NT. Responsible for performance tuning overall system for NT. Reduced in-memory image size by 50% and increased throughput by an order of magnitude. Wrote PerfMon extensions that allowed remote monitoring of applications. Acted as NT and C++ mentor for group and gave series of technology seminars.

Assorted Companies (Wang, NEBS, Apollo, Digital, various universities) 1981 – 1994.

- Designed testing systems and languages for large client-server office automation system.
- Team Leader designing and implementing family of small business software packages. Served as mentor to very junior team. Product line included 30 products, with over 8,000 units sold
- Created scheduling, data collection and analysis software for dolphin research.
- Led Pascal compiler development/support team for Pro-350 PC.
- Designed and implemented real-time timing and scoring program for Head of the Connecticut regatta.

Education:
Johns Hopkins University (Coursera), Data Science Specialization, in progress.
University of Hawaii, Dolphin Research Lab, Honolulu, HI. MA in Cognitive Psychology, 1988.
Wesleyan University, Middletown, CT. BA in Philosophy May 1981.

Awards
Duke's Choice and RockStar Awards for Log4JFugue from Oracle/Sun at JavaOne
Charlie Award for Innovation from Atlassian Systems.
NetView awarded "Network Management Product of the Year", Networld/InterOp 1998, 1999.
NetView awarded *NetWork Computing Magazine's* Editor's Choice for NT Network Management. 1997.

Presentations
Numerous presentations at local Meetups, User Groups, JavaOne, Atlassian Summit, ACM, IEEE and the National Cable Television Technical Forum. . See: http://briantarbox.org/presentations.html

Publications
Numerous publications in Doctor Dobbs Journal, Pragmatic Programmer Magazine, No Fluff Just Stuff Magazine, SearchAWS.com and LinkedIn Pulse News. See: http://briantarbox.org/publications.html

Patents
Five US Patents granted, six more pending covering UI design, intelligent caching and streaming and time shifted social media. See: http://briantarbox.org/patents.html

Certified Scrum Master

Open Source Project – Duke's Choice Winner 2010
Created Log4JFugue as an open source project built on top of the successful JFugue project. It is a Spring based program to parse any program's log file output and convert it into a music stream.