# Prabuddha Biswas

## **3131 234th Ct SE, Sammamish, WA 98075**

***Tel: +1 425.269.5923***

prabuddha.biswas@gmail.com

**SUMMARY:**

I am a seasoned technology executive with diverse experience in high performance operating system, data management and analytics architectures, machine learning applications for customer personalization, ad serving, security incident detection, etc. I am well versed in big data, predictive analytics using different cloud and storage technologies and machine learning platforms. I have shepherded new initiatives where I conceived and nurtured new ideas, gathered requirements, developed architectures, quickly built teams, and successfully delivered quality products on tight budgets and schedules. Subsequently, I have pushed products in the market by working closely with the field consultants and early-adopter customers. I am skilled at handling projects with components developed in groups distributed across the globe. I have simultaneously managed multiple complex projects to deliver innovative products with strong business results. I have improved team productivity and product quality using strong software development discipline in both startup and mature team settings.

My strong communication skill is invaluable in building good relationships between groups, ‘selling’ new concepts and projects to stake holders, partners and customers. I have built teams with great camaraderie and infused them with my excitement. My technical strengths are evident from my education, experience, patents and publications.

**EDUCATION:**

* Executive Program, MIT Sloan School of Business.
* M.S., Ph.D. in Electrical and Computer Engineering, University of Massachusetts, Amherst.
* B.Tech in Electrical Engineering from the Indian Institute of Technology (IIT), Delhi.

**EXPERIENCE:**

**CTO, Alert Logic, July 2015 – current.**

* ***Full Stack Security-as-a-Service solution with innovative analytics***

Alert Logic combines Cloud based software, innovative analytics and security experts to provide a full-stack security solution that detects and blocks threats to web applications and server-side components. We use rules, heuristics and machine learning techniques to detect security incident and anomalous access patterns.

* **Achievements:**
* Transformed the core security incident detection engine to be able to leverage machine learning and heuristics. We incorporated expert analyst feedback into the process to further refine the algorithms. Gartner has specifically called out Alert Logic's leadership in using machine learning in the 2018 IDPS Magic Quadrant report.
* Introduced innovative detection capabilities based on successful attack pattern and temporal analysis. We extended the analytics framework to detect attack progression. Added the capability to incorporate external ‘bad actor’ data to enhance detection.
* Performed detailed user experience analysis of the security analysts and customers to revamp the tools used to analyze security incidents.
* Involved in acquisition of Click Security into Alert Logic. Integrated engineering and security services teams into our structure.

**VP Engineering, Airbiquity, June 2013 – July 2015.**

* ***Scalable M2M Platform for Connected Car Services***

Airbiquity is the global leader in connected car services and a pioneer in the development and engineering of automotive telematics technology, the foremost application of Machine-to-Machine (M2M).  Airbiquity enables the vision of the connected car today with the industry’s most advanced cloud based vehicle services delivery platform: “Choreo™”and is perfectly positioned to address the ‘Internet of Things’ applications.

* **Achievements:**
* Focused on building out a scalable, high performance, reusable platform.
* Platform provides connectivity, dynamic content management, user management, business intelligence services.
  + Cloud based platform enabling services for over 30 million vehicles.
  + Deployed in 50+ countries in 30+ languages.
* Introduced practices that enabled agile development and operational excellence in all aspects of engineering.

**SVP Engineering, Medio Systems, June 2011 – June 2013.**

* ***Big Data Analytics to drive customer understanding, engagement and monetization***

Medio helps their customers to easily collect application usage information which it then uses to derive rich understanding of the customer. Then the data is used to drive predictive analytics models to acquire, engage and monetize the customers in real-time. Medio is democratizing the analytics landscape by making large scale data collection and advanced, predictive technologies accessible to companies of all sizes. We leverage a hybrid Amazon AWS and private cloud solution.

* **Achievements:**
* Took over several engineering teams developing products and solutions in stove pipes and rationalized all the efforts on one common platform.
* Built out a strong team to develop a high performance data analysis and personalization platform. Introduced practices that provided clear visibility into the development process.
* Focused the company on a set of products based on open source technologies with strong emphasis on scalability and performance.
  + Cloud based platform (Hadoop, Cassandra, HBase) ingests over a billion events per day.
  + Machine learning driven personalized recommendation/promotion system serves billions of offers per month. Drove over 50% in app purchase growth in Rovio Angry Bird game.
  + Supporting over 100 million unique users in over 100 countries.

**VP Engineering, Smart Desktop/ Director, VMware, May 2008 – May 2011.**

* ***Intelligent way to organize and search your personal cloud data***

Smart Desktop allowed users to organize their data by associating them with projects, topics, or individuals. It also ranked resources to makes personal information search more relevant. This project was based on a patent pending machine intelligence technology. I was brought into the team to provide experienced leadership to take the product to market. The company was merged with Mozy Corporation. The mission of the new venture was to help people protect and organize their ever increasing body of personal digital data.

* **Achievements:**
* Brought discipline to a university startup to take a research project to a finished product.
* Took a fresh view of the project by going back to interaction design. Employed a design firm to develop user personas and a set of clear user scenarios. Then focused development and testing on those scenarios. Performed usability studies to understand the strengths and weaknesses.
* Performed system performance analysis to optimize system responsiveness. Introduced A/B testing for algorithm evaluation.
* VMware created their cloud division by merging 3 different startup companies – I was involved in rationalizing the different technology stacks and team organizations.
* Developed iPhone, Android and Blackberry mobile clients for Mozy.

**Director of Technology, Amazon.com, April 2006- April 2008**

* ***Online demand generation and world-wide marketing***  
  Took the helm of a group with low morale and the business experiencing negative growth in the face of stiff competition from Google. Transformed the team into a unit that grew traffic that delivered over $3B of revenue to the Amazon retail platform through affiliate sites. My team delivered effective products with high quality and operational efficiency. We extracted page context, mined user behavior information and site statistics to deliver relevant product advertisements on affiliate sites. I introduced Agile development methodology to the team and brought a new focus on customer data analytics and interaction based design philosophy.  
  **Achievements:**
* Delivered 40% traffic growth to Amazon.com through the affiliate sites - far exceeding expectations.
* Significantly improved the overall health of the program as reflected by the number of new affiliates signing on to the program, the number of affiliates driving sales to the site, the cost to acquire a customer and the “long term value” of the customer.
* Delivered innovative products in a short period of time
  + Contextual advertisements
  + Affiliate storefront tool
  + Interesting Widgets that promote Amazon products and services
* Used product sales data to optimize the data feeds sent to comparison-shopping sites to save millions of dollars to the Amazon bottom line.
* Introduced a focus on user-interaction based design philosophy. Improved site design and the usability of our products and services. Studied web access behavior and applied analytics towards decision-making.
* Improved operational efficiency. Tripled the throughput at constant hardware cost.

**Director of Software Development, Oracle Corporation, 1996-2006**

Led software development teams in two areas for Oracle.

* ***Mobile Location Services***  
  Proposed a patented idea of a location aware application infrastructure based on the Oracle database and Application Server. The platform was used for developing mobile applications for field service, asset management, fleet management, emergency response, etc. The mobile phone technology and the world of Internet were coming together and we saw an opportunity to personalize the interaction with the user’s location. The location services platform also integrated content from the Internet and from enterprise databases. The framework supported load balancing and rule based data source selection. We provided a Java client and a Web Services interface to facilitate application development. We also had client libraries for the popular mobile platforms. Managed the product through three complete release cycles. Managed a globally distributed team on three continents.  
     
  **Achievements:**
* Conceived of the idea and proposed the architecture for incorporating location services in the Oracle Application Server product. Received two patents on the architecture.
* Developed a team and delivered on every aspect of product development cycle – specification, design, development, testing, integration, documentation, training and support.
* Represented the project to senior executive team for architecture approval and funding.
* Responsible for developing the business relationships with content partners and working with field consultants for beta testing and final delivery to customers.
* The Oracle Application Server is recognized as one of the industry leading middle-tier platforms and analysts recognized location services as one of the strong and distinguishing features of the product.
* Presented project with Oracle Chief Marketing Officer in keynote address at Oracle World.
* ***Oracle Database Server Technology***  
  Developed a patented algorithm to efficiently manage the Oracle buffer cache. Developed algorithms for efficient indexing of multi-dimensional data. Led the engineering team developing the framework in the Oracle database to enable storage, retrieval, dissemination and analysis of sensor data. The platform let you define sensor metadata and environmental characteristics. Provided a web services front end and an Oracle database repository. It included indexing schemes to efficiently access sensor data and link ‘raw’ sensor observations to business events.   
    
  **Achievements:**
* Received patent for Oracle buffer cache algorithm.
* Query optimizations produced record breaking benchmark results.
* Responsible for developing Oracle’s Sensor data management strategy and architecture.
* Deployed pilots at major retail, logistics and government customer sites.
* Represented Oracle on industry standards committees.
* Mentored team member into both Harvard Business and MIT Sloan MBA programs.

**Technical Director, Digital Equipment Corporation, 1992-1996**

* Led the team responsible for the complete suite of performance analysis tools for Windows NT, Digital Unix and OpenVMS. The product had a client data collections component, a centralized repository and a server based performance advisor component. The system analyst could monitor real-time performance, set alert rules and also perform capacity planning.  
    
  **Achievements:**
* Led a group of experienced team members with major contentious issues.
* Leveraged my background in operating systems to lead the development of complex rules to detect system performance degradations.
* Developed detailed memory management, I/O subsystem and CPU scheduling models for accurate capacity planning.
* Achieved annual revenue around $40 million (back in 1995).
* The profitable product division was sold to Computer Associates in 1996.

**PATENTS:**

I have 7 patents in the areas of:

* Location-aware, mobile application infrastructure (Patent #6594666, 6954764, 9993670)
* Data management and file system caching. (Patent #7479875, 5390318, 5636355, 6378043)