**Sidney L. Bryson, Ph.D.**

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## Summary

* 20 years’ experience inSystem Engineeringand Network Architecture in telecommunications**.**
* Five years experience with consulting in Infrastructure migration methodologies and techniques to support application and data movements to Azure and AWS cloud services.
* Desire to work and teach in a data driven based role and use hands on technical skills to monetize new technologies.

## SKILLS

**Cloud Architecture –** AWS, Azure and Google Cloud Platform. Openstack, Kubenernetes, Docker, and virtualization.

**Tools --** Vagrant, Chef, Canonical, npm, Visual Code, sharepoint

**Languages and OS --** Python™, Python-Panda, “C”, ”C++”, “Java Script”, Pearl™, Unix, HTML, MATLAB, UNIX/Linux Scripts, SQL, MySQL, mongDB, Redis, NoSQL, RedFish.

**AGILE Development --** Product Owner role, Scum master role, SCRUM™ teams, Kanban teams.

**People Skills** – Leadership, customer presentation, sales, teaching.

**Workshop Development** -- Developed full day workshop for Wireless 101.

**Healthcare** – Developed Python based API driven applications and data usage automation workflows with HIPAA requirements for remote customer monitoring as private consultant.

## PROFESSIONAL EXPERIENCE

## Nokia, Naperville, IL 2016 – Present

**Senior System Architect (Full-Time)**

* Creating sales and solutions strategies for service providers for mobile edge computing at scale and developing migration strategies for applications on infrastructure as a service in remote data centers using distributed OpenStack and Kubernetes architectures based on ETSI MANO driven architectures.
* Experience designing and applying reusable blueprint solution architectures to demonstrate reduction of total cost of ownership through data migration from proprietary purpose built architectures to open source cloud based architectures.
* Consulting on strategies for introducing micro-services based on container solutions with Kubernetes and Docker.
* Strategy and planning for communications network infrastructure, data and storage to network function virtualization and infrastructure as a service architectures.
* Leading development team in open source API creation of Redfish remote provisioning and management capability for large data centers. Using DevOps and CI/CD methodologies resulting in increased customer delivery and time to market.
* Led workshops and trainings on enterprise infrastructure migration strategies for a content media based organization to migrate to cloud based wireless infrastructure architecture.
* Prototype solution development leveraging Amazon Web Services for data infrastructure project to redirect live streaming IoT media flows to monitoring and storage services without performance integration of the wireless enterprise structure.

**Environment:** OpenStack, Linux, Kubernetes, Docker, MS sharepoint, GiT, JiRA, virtualization, containers, cloud native, Amazon Web Services

**Consulting** , Plainfield, IL **2003 -Present**

* Private consulting for small medical field companies in helping to migrate enterprise infrastructure management for their data collection and data communication architectures to the public cloud.
* Developed application architecture for infrastructure as a service offering to host services in Azure cloud and reuse blueprint strategies based Azure services resulting in a large reduction in total cost of ownership for the customer.
* Developed remote information flow based architectures using CI/CD and sFTP to maintain HIPAA constraints for data flow and data migration to protect consumer information.
* Create multiple API driven automation tools for HIPAA managed data for information sharing between insurance entities, patients, and doctors.

**Environment**: Microsoft Azure, Linux, Python, eFAX, GiT, sFTP, encryption, NoSQL

**Alcatel-Lucent**, Naperville, IL **2008 – 2015**

**Principal** **Wireless Chief Technical Officer, 2012 – 2015**

* Experience in open source Cloud-based API’s and virtualized Linux containers for network intensity mapping and network analysis to discover optimal cell placement for cost versus performance improvements in live data networks.
* Leveraging Linux container portability designs taking specialized data analysis container to Microsoft Azure™ to deliver Cloud-based solutions for machine learning analysis.
* Created end to end strategic Use Cases for LTE data services by showing customer how to optimize the combination of available features resulting in increased revenue capability and improved user experience for wireless users.
* Achieved over 30% metric improvements with wireless networks through Big Data analytics and machine learning by using PySpark in a Hadoop environment to process data lake information.

**Solutions Architect, 2008-2012**

* Led international development team in Bangladesh, India using AGILE and Scrum development techniques to deliver IBM Rhapsody model driven project for CDMA networks 1.5 times faster than traditional process delivery without quality tradeoff.
* Prototype development and network modelling for feature optimization.

**Environment:** Microsoft Azure, PySpark, Hadoop, Agile SCRUM methodology, Vagrant, Dockers, Python, Visual Studio, GiT

**Lucent Technologies,** Naperville, IL **1999 – 2008**

**Chief CDMA/EVDO Architect, 2004 -2008**

* Designed packet data hardware architecture and multi-carrier allocation technology in 3G EVDO wireless system resulting in 3x bandwidth improvement over current 3G architectures.

**UMTS/GSM Architect, 2000-2004**

* Mastered expertise in IP and ATM protocol inter-working resulting in improved efficiency and data network transformation. Designed complex hardware architecture for emerging wireless networks.

**System Engineering, 1999-2000**

* Team leader of IP Telephone projects including vendor management and technical specifications, standards based interface work (H.323, SIP protocols), and OAM&P issues resulting in early adoption of VoIP.

**Environment:** Linux, Solaris, ATCA, ePCI, 3GPP, 3GPP2, ETSI

## CERTIFICATIONS AND ACCOMPLISHMENTS

Distinguished Member of Technical Staff Award in May 2010 Alcatel-Lucent Technologies

IEEE Member; IEEE ComSoC Member; IEEE Local Chicago Member

Advanced Negotiating Skills Certification, Value Based Selling Certification

**PATENT AWARDS**

* “Method and system for opportunistic delivery of less-than-best-effort application data over communication networks” Patent number 10033820
* “Method for Machine to Machine Communications” Patent number 9729516
* “Quality Of Service Level In Broadband Communications Systems” Patent number 7652990
* “IP Packet Access Gateway” Patent number 7068598
* “Portable Wireless Gateway” Patent number 7346025

###### EDUCATION

**North Carolina A&T State University,** Greensboro, NC. Ph.D. in Electrical Engineering.

**Purdue University**, West Lafayette, IN. M.S., in Electrical Engineering.

**Tuskegee University**, Tuskegee, AL. B.S. in Electrical Engineering.