

# Kyle J. Barnhart

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## EDUCATION

### **B.S., Electrical Engineering, May 2010**

Photonic and Nanoengineering Specialization

Rice University

Houston, Texas

## RELEVANT EXPERIENCE

### **Senior Business Intelligence Engineer**

#### **Technical Lead**

Alert Logic, Houston, Texas

July 2015 – Present

- Hired to develop and implement an end-to-end, in-product business intelligence and reporting solution including ETL and reporting platform based on Tableau Server, Amazon Redshift and Amazon Kinesis
- Lead the Product BI team as it grew from one to seven team members, including dedicated roles for report development and ETL development
- Took primary responsibility for after-hours deployments and issue triage
- Followed agile development practices including scrum, sprint planning, backlog grooming and sprint retrospective meetings
- Utilized engineering-wide development technologies such as GitHub Enterprise, Jenkins, and chef for continuous integration and deployment.
- Collaborated with an international development team, with engineers in Cardiff, Wales and Cali, Colombia
- Developed the internal deployment processes for report releases, including change control, pipeline deployment, and continuous integration

## NOTABLE PROJECTS

### **In-product Reports**

- Implemented a set of Tableau dashboards for quickly gauging the security posture and overall risk of customer environments through cross-filtered visualizations
- Designed and implemented the security model for customer-facing Tableau reports
- Collaborated with stakeholders from UI, UX and product management teams to develop requirements for new reports, while advocating for best practices in visualization and technical design of each report
- Released over two dozen customer-facing Tableau dashboards as tools for compliance reporting, investigating vulnerabilities across vast cloud deployments, and tracking vulnerability trends over time
- Responsible for periodic updates and enhancements to Tableau Server across multiple product regions

### **Redshift Data Warehouse**

- Designed and maintained the customer-facing data warehouse on Amazon Redshift, a PostgreSQL-like cloud platform offered by Amazon Web Services
- Developed and enhanced the schema and tables that served as the foundation for Alert Logic's customer reporting platform
- Developed and maintained the supporting cloud infrastructure to ensure a secure and compliant solution, including the design of VPCs and security groups

- Implemented encryption of the warehouse for General Data Protection Regulation (GDPR) compliance
- Created and maintained a monitoring and alerting solution for warehouse health and performance using Datadog and PagerDuty

#### **Python ETL Content**

- Primary author of Python scripts executed by the team's ETL application, moving microservice data from the Alert Logic product suite to our reporting solution
- Defined data sources such as REST API endpoints or Amazon Kinesis streams, along with destination tables, scripts, and data transformations
- Responsible for the overall accuracy, performance and reliability of each ETL content script

#### **Generic Schema and Load Pattern**

- Developed a method for change detection, keying and indexing in a generic fashion for all Python content
- This vastly simplified the process of bringing new data sources into the solution by eliminating the need to write custom-tailored load SQL for each content

### **Senior Software Consultant**

Entrance Software, Houston, Texas

July 2010 – June 2015

- Served as software consultant focused on SharePoint and business intelligence development for this Houston-based software consulting practice
- Deployed, configured, and wrote custom code solutions for SharePoint
- Setup and administered solutions in SQL Server 2005, 2008/R2, 2012 and 2014
- Developed relational data warehouses using SSIS
- Created SSAS data cubes for self-service reporting
- Authored custom-tailored reports using Tableau Server and SSRS
- Designed and deployed TIBCO Spotfire analyses and dashboard solutions
- Performed ad-hoc SQL Server performance tuning for multiple projects, including query redesign and index tuning
- Adhered to different project methodologies, including the Microsoft Solution Format ("waterfall"), agile development and Scrum
- Worked directly with clients during pre-sales, sales demonstrations, requirements gathering, product backlog development, sprint planning, change management, deployment and project close-out

#### **NOTABLE PROJECTS**

##### **Internal Consulting Dashboards**

for Entrance Software

- Requirement: Surface data from the company's Professional Services Automation (PSA) system in intuitive dashboards for consultants, project managers, practice leads and executive leadership
- Developed an automated system to extract PSA data from e-mailed reports and store it for analysis and re-use outside of the PSA system
- Replaced weekly static project assignments with a tool for consultants to track their booked projects and progress to weekly billable targets
- Created a single KPI dashboard to track progress to quarterly company goals (% to Plan, Realized Hourly Rate), forecast revenue and present this information on television monitors throughout the office
- Had a lasting impact on the organization's performance and predictable revenue, with performance to plan above 95%, more accurate project cost estimates and faster insight into project execution

##### **College Match Dashboard**

for a nationwide network of charter schools

- Requirement: Develop a tool to assist counselors in matching high

- school students with prospective colleges
- Designed a dashboarding system built upon Tableau Server and surfaced in SharePoint 2010
- Consolidated information from a Salesforce database of student demographics, SharePoint lists and flat files into a relational data warehouse using SSIS and SQL Server Data Tools
- Created reports in Tableau leveraging the data warehouse and deployed the reports to Tableau Server

### **Production Accounting Reporting Solution**

for a Houston-based upstream energy business

- Requirement: Transition the client's existing MS Access-based reporting "application" to a more robust and manageable solution
- Requirement: Leverage the client's SharePoint 2013 implementation for report management and subscription management
- Refactored and rewrote existing Access queries in T-SQL as stored procedures on a dedicated reporting database
- Implemented reports in SharePoint-integrated SSRS
- Configured security and access control

### **Data Warehouse Maintenance, Support and Feature Enhancement**

for a Houston-based charter school district

- Requirement: Serve as both database administrator and database developer overseeing an existing data warehouse implementation
- Leveraged the data warehouse to integrate the client's student information system with third-party systems
- Developed new reports in SSRS and Tableau
- Extended the data warehouse schema for standardized test reporting
- Created new SSIS packages to load standardized test data
- Performed database administration tasks such as creating maintenance plans, enforcing database governance, controlling access, and developing ad-hoc queries for reporting.

### **Technology, Society and Public Policy Research Assistant**

James A. Baker III Institute for Public Policy, Rice University, Houston, Texas

August 2009 – March 2010

- Researched emerging trends in technology and their impact on society under Dr. Christopher Bronk, the Baker Institute's fellow in Technology, Society and Public Policy at Rice University

### **Community Development Specialist**

Connexions, Houston, Texas

November 2008 – August 2009

- Worked at Connexions (<http://cnx.org>), an open education web site that supplies free and low-cost learning materials to students and teachers worldwide
- Tasked with writing new documentation, providing technical support to users, and promoting open education through social media outlets
- Instrumental in the coordination of CNX09, a two-day open education conference hosted at Rice University, as well as CNX10
- Designed, implemented, and co-authored the Connexions Blog (<http://blog.cnx.org>)
- Created and maintained Connexions' web communities on Twitter (@cnxorg) and Facebook (<http://www.facebook.com/cnxorg>)

### **Web Development Intern**

SMBology, Inc., Houston, Texas

April 2008 – August 2008

- Interned as a Microsoft .NET web developer a local IT consultancy providing web application development for small and medium-sized Houston businesses
- Worked one-on-one with clients to develop web sites and SharePoint web parts

## **Instructional Technology Assistant**

Rice University, Houston, Texas

June 2007 – October 2007

- Worked as a student assistant for Rice's Instructional Technologies branch
- Performed service calls and desktop support to assist users with A/V system troubles
- Helped to install, dismantle, and supervise A/V equipment for special campus events

## **Research and Software Development Intern**

Naval Surface Warfare Center, Panama City Beach, Florida

May 2006 – August 2006

- Tasked with developing a user interface for LCAC ship-to-ship and ship-to-shore text-based communications

June 2005 – August 2005

- Tasked with developing a computer platform to simulate and test Landing Craft Air Cushion (LCAC) control hardware

June 2004 – August 2004

- Challenged with testing new, secure navigation and communications hardware for US Navy Mine Countermeasures (MCM) ships; Developed software-based simulator to model MCM navigation systems

## **CERTIFICATIONS**

### **Tableau Certified Analyst**

August 2014

### **Microsoft Certified Solutions Expert: Business Intelligence**

January 2014

### **Microsoft Certified Solutions Associate: SQL Server 2012**

May 2013

### **Microsoft Certified Technical Specialist – SharePoint 2007, Configuring**

October 2010

## **TECHNICAL SKILLS**

### **BI Platforms**

- Tableau Server
- TIBCO Spotfire

### **Databases**

- Amazon Redshift
- Microsoft SQL Server

### **Documentation**

- Technical writing
- Professional blogging

### **Scripting languages**

- Python
- Bash

### **Publishing tools**

- Adobe Creative Suite
- Microsoft Office Suite

### **Hardware**

- Analog circuit design and debugging

### **AWS Platform**

- CloudFormation
- IAM
- EC2
- S3

### **Report Development**

- Tableau Desktop
- TIBCO Spotfire
- Sisense