

Kyle J. Barnhart

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EDUCATION

B.S., Electrical Engineering, May 2010

Photonic and Nanoengineering Specialization
Rice University
Houston, Texas

RELEVANT EXPERIENCE

Principal 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 at 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