Corey W. Sykes

Data Scientist/Engineer | 757.710.0769 | corey@coreysykes.com

SUMMARY

I work in the Advanced Analytics & Strategy division of Cisco's Digital Marketing mainly as a Senior Data Engineer, but wear many hats within the organization to solve a variety of challenges. I currently lead several high profile technical projects for Cisco Marketing from an Engineering/Architecture/Implementation perspective, including one of Marketing's three KPIs, coined Engagements, to support the objective of developing deep and rich customer relationships and experiences that drive increased business for Cisco. It helped my team win the 2017 IIA Excellence in Analytics Award, the 2018 ANA Genius Award, and a Highly Commended DRUM Awards Citation.

TECHNICAL SKILLS SUMMARY

- Extensive experience in:
    - Solving vague and complex business questions with the use of big data and data story-telling to provide actionable insights to the business.
    - Designing, architecting, and implementing distributed enterprise-level big data solutions at scale for a variety of analytics works using the Hadoop ecosystem with tools such as **Bash, Hive, Spark, Sqoop**, and **Kafka/Flume**.
    - Software Development Lifecycle Tools like **JIRA**, **Rally**, and **Git** for documentation and version control.
    - Using **Tableau**, **Domo**, and open-source **JavaScript** libraries (**d3**) to create custom visualizations and apps.

Development Languages	Python, HTML/CSS, JavaScript, Java, some R
Big Data Stuff	SQL/Hive, Spark, Kafka, Drill, Sqoop, Cassandra, Google Cloud Platform
Automation / Scripting Tools	Bash, Crontab, Rundeck, Tidal
Visualization Tools	Tableau, Domo, JavaScript (D3), Platfora
ML / Data Science Experience	Experience with Bayesian Networks, Optimization, Decision Trees, Regression, Attribution, Forecasting
Databases	Teradata, Oracle, MySQL, Cassandra, Graphs
Web Data / Tag Management / Social	Tealium, Adobe SiteCatalyst, Google Analytics, Radian6, DynamicSignal, Graphs

AWARDS / SPEAKING EVENTS

- 2018 ANA Genius Award
    - Press release link: https://www.ana.net/content/show/id/50897
- 2017 International Institute for Analytics ANNY Award Winner
    - Award given to the team I work on at Cisco for our analytics initiative, which our three KPIs have yielded 74% increased Engagement YoY, 46% increased Sales Qualified Leads, and 127% increased Marketing Sourced Bookings
        - Press release link: https://iianalytics.com/news/international-institute-for-analytics-honors-cisco-with-2017-anny-excellenc
- 4th Annual Bayesia Conference 2017 – Nashville, TN
    - Presented on recent work involving defining a customer engagement KPI at Cisco. Deck available on personal website (http://coreysykes.com/portfolio.html)

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PROFESSIONAL EXPERIENCE

Sr. Data Engineer, Cisco Systems, Research Triangle Park, NC   *March 2015 – Present*

- Work with large, complex, raw server web logs; solve difficult, non-routine analysis problems, applying advanced analytical methods as needed. Conduct end-to-end analysis that includes data gathering and requirements specification, processing, analysis, ongoing deliverables and presentations.
- Design, construct, and deploy scalable, production level systems, data pipelines, and ML models with my dynamic skill-set to provide insights at scale for stakeholders.
- Make business recommendations (forecasting, KPI creation, recommendation engines) with effective presentations of findings at multiple levels of leadership through visual displays of quantitative information.

Projects

- **Defining Customer Engagement and Content Performance on Cisco.com**
  - Worked within a small team to develop a new metric, coined 'Engagements' for Cisco – one of three KPIs all Cisco Marketing organizations are now goaled and measured against.
  - Developed a customer engagement and content performance model by doing deep exploratory data analysis on content across Cisco.com domains, using random forest modeling to find important factors that are indicative of engagement to content and Bayesian networks to calculate metric weightings.
  - Led architecture design, development, and implementation of the KPI, which is used for downstream reporting by all 1,500 Marketing employees. It crunches 1M user session's daily in near-real time for stakeholders.
- **Scalable Customer Journey Mapping - State Machines**
  - Designed and implemented a distributed production system for identifying where every customer Cisco lies in their customer journey. Created a fully functional application used for understanding exactly where each of Cisco's current 650k+ customer base currently sits in their individual purchase journey. Used by CMO and down.
  - Leverages Spark/Hive for data processing, 50+ ML models for input factors, and a custom d3 visualization web app, built with HTML, CSS, JavaScript, PHP, Python, and MySQL to allow dynamic research of accounts by both Marketing and Sales. Available to showcase upon request.

CSykes Web Design, Freelance, Raleigh, NC   *October 2013 – Present*

- Self-driven learning of many languages, including HTML, CSS, JavaScript, jQuery, MySQL, PHP, and AJAX to create responsive websites. Currently used as a sandbox for learning new languages and visualization techniques.
- Personal Website: http://www.coreysykes.com/

EDUCATION

Virginia Polytechnic Institute & State University, Blacksburg, VA   *Fall 2009 – Spring 2013*

- *Bachelor of Science, Economics*

Awards	Involvement
Pamplin Leadership Award, *2009-2013*	Virginia Tech Billiards Club President, Treasurer
H.C. & C.W. Watson Scholarship, *2009-2013*	Virginia Tech Club Golf Team Member
Hallie Whealton Trust Fund Scholarship, 20*09-2013*	

HOBBIES

I have a natural talent for most sports – I was a former professional pool player (I still travel a bit and play), was formerly an online poker player in college, used to fund my schooling, and am currently a near-scratch golfer. I really enjoy being a lifetime learner and strive to be the best at everything that I do. I love solving tough problems and am always looking for the next challenge to tackle.