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*I am a mathematician-turned-data engineer with a penchant for applying rigorous quantitative thinking to difficult problems in the technology space. I am notorious for asking the right questions. I have a deep love for information presentation and communication.*

## Education

- (Oct 2015-Jan 2016): Galvanize Data Engineering Immersive
- (Sept 2008-May 2014): Ph.D. in Mathematics, Kansas State University
  - *University Academic Excellence Award.*
  - *Surowski Memorial Fellowship Research Excellence Award.*

## Professional Experience

**Blue Bottle Coffee (August 2016-Present): *Senior Software Engineer*, Data Engineering and Machine Learning**

- *Team Leadership* led two engineers in refactoring, and feature development; mentored and coached junior engineers to produce production code and on SE process best practices
- *Demand Forecasting Engine* Daily predictions for 1000's of sku's > 50 locations
- *Production Model and Prediction Deployments* Designed AWS architecture and deployment
- *Forecasting Pipeline and API* Job queue and messeging based pipeline
- *Data Warehouse Development* implemented micro-service DB's; designed DB views
- *BI Dashboarding, Performance Analysis* developed performance metrics, and build user dashboards
- *Project Planning and Development* greenfield project development, prototyped, and productize V1
- *Deployment and DevOps* assisted in cloud infrastructure and devops for AWS ECS cluster
- *Testing and Containerization* Dockerized ML pipeline, integrated testing framework/jenkins (unit and integration)
- *Recommendation Engine* build a user-facing recommendation engine for coffee flavors
- **Used Python, Ruby/Rails, StateSpace, Experimental Design, SQS, Redshift, SNS, ECS, pytest, Docker, Jenkins**

**Quasicoherent Labs (January 2016-Present): *Founder*, Data Scientist**

- *MedForm Entry Efficiency Analysis* Experimental Design
- *Recruit Forecasting* Throughput forecasting Kaggle competition (top30% rank)
- *When It Finally Happens* Research and Data Visualization Book Project

**IBM(Aspera Labs) (February 2014-July 2016): *Software Engineer*, Research and Development**

- *Terabyte-scale Spark Streaming data pipeline for Timeseries analysis*
- *Data Visualization Dashboard and Log File Processing*
- *Livestream data transfer experimentation, analysis, and paper writing*
- *Research and prototyped a number of data products for integration with Aspera's core software. This ranges from researching ML algorithms in specialized fields, to extensive mathematical modeling of signals.*
- *Satellite network analysis*
- **Used Scala, Spark, Kafka, Mesos, Python, REST API, JSON, Javascript, D3.js, CSS, HTML, Awk, Sed, BASH, GNUplot, C++, C, Ruby, jQuery, signal processing, statistics, control theory, experimental design.**

**Galvanize Data Engineering Immersive (October 2015-January 2016)**

- Project driven course covering several of the most popular and essential big data technologies, architectures, and algorithms. Solo and pair programming labs daily—implementing, problem solving, and testing.
- **Data Engineering Capstone:** Spark Streaming log file parser.
- **Used Spark, Scala, Kafka, MapReduce, Hive, Pig, Sqoop, Flume, Scalding, HDFS, Hadoop, Python, REST API, JSON, Java, JUnit, and more**