

# Jacob O. Miller

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## Objective

Seasoned data scientist seeking opportunity to implement end to end technology solutions to challenging data and analytics problems.

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## Work Experience

- **IBM Watson Health**, Data Science Innovations [www.ibm.com/watson/health](http://www.ibm.com/watson/health)  
*Principal Data Scientist / Analytic Architect* 2018 - Present
  - Focused on delivering AI/ML solutions in a variety of cloud based architectures
  - Leading initiatives to streamline the end to end AI lifecycle for data scientists across the organization resulting in a reduction to delivery timeline from ~9 months to ~3 months
  - Received Watson Health General Manager Award
- **Explorys / IBM Watson Health**, Innovation Team <https://www.ibm.com/watson/health/explorys/>  
*Senior Data Scientist* 2012 - 2016

### Probabilistic Person Matching

Designed and implemented a best in class application for determining the identities of patients seen in healthcare data. The application is based upon a bayesian record linkage algorithm implemented in a Hadoop/Spark environment.

- Runs over hundreds of millions of patients on a nightly basis
- 4 patents granted
- Finished in the top 10 of the ONC's patient matching challenge in 2017

### Risk Modeling Framework

Designed and implemented a big data framework for implementing analytical models. The framework enabled our data scientists to easily build and deploy complex analytical models.

- Generates billions of risk scores on a nightly basis
- Built common routines to accelerate the implementation of new models
- Implemented dozens of analytical models in this framework

### Claims Processing Pipeline

Designed and implemented an end to end process for ingesting claims data into our platform. This process replaced a defunct one that left customers unhappy with inaccurate data and analytics.

- Worked closely with customers to define requirements and success criteria
  - Designed the data model used throughout the platform and applications
  - Created automated ingestion routines and quality checks
  - Implemented hundreds of claims based analytics
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## Education

- **The Ohio State University** **Columbus, OH**  
*College of Engineering, M.S. Operations Research* 2010 - 2011  
*College of Engineering, B.S. Industrial and Systems Engineering* 2006 - 2010
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## Interesting Things About Me

I've been a bike commuter for the past 5 years. In my free time I'm an amateur bread baker, musician, bartender and dog dad.