

# 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**, Center for Applied Informatics [www.ibm.com/watson/health](http://www.ibm.com/watson/health)  
*Director of Foundational Informatics* 2018 - Present
  - Focused on improving the usability and quality of healthcare data in the Watson Health Cloud
  - Leading initiatives to integrate multiple IBM acquisitions into a single coherent platform strategy
- Team Lead Platform Innovation* 2017 - 2018
  - Lead a team of 5 data scientists
  - Oversaw the development of new models, onboarding process improvement and SME customer support
  - Received “honey badger award” given to employees that go above and beyond normal duties
- **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 filed, 1 granted to date
- 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’m a cocktail fanatic with a home bar of ~100 bottles. My primary mode of transportation is a bicycle. I’m an amateur piano and guitar player. I dabble in web development in my free time.