

Tianwei Zhang
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Summary

Data scientist with 3-year experience of creating actionable insights in management consulting and software industry. Emerging people leader with a track record of apprenticing junior members and building team capabilities. Strong research background with a Master's Degree in Operations Research from Cornell University. Proficient in data science tools such as R, SQL, Shiny, HiveQL, and Sparklyr

Experience

McKinsey & Company, Waltham, Massachusetts

Analytics Fellow

Nov 2015-present

Create business recommendations with advanced analytics. Develop web-based applications with R Shiny to streamline analyses and **reduce lead time** by 80%. Recruit and **apprentice** two junior analysts (McKinsey certified interviewer)

Example 1: Product value differentiation with patient segmentation

- Created **value story** for a newly launched product by identifying outperforming patient segments
- Built zero-inflated negative binomial models to predict rate of a severe medical event
- Applied **propensity score matching** to ensure fair comparison between two patient populations
- Utilized **project management tools** such as GitHub, Confluence, and Jira to collaborate in the team

Example 2: Clinical trial optimization

- Optimized clinical trial site selection with novel data and analytics methodologies
- Designed and predicted multiple **metrics** to evaluate clinical trial efficiency
- Reduced time to reach enrollment target by 20% by leveraging machine learning models
- Improved success rate by 6% with a **classification** model to predict site failures
- Integrated and managed five data sources with more than 3 million data points in R, SQL, and Alteryx
- Developed customized fuzzy matching algorithm to match hospital names

Example 3: Customer journey for e-commerce

- Revealed insights on customer engagements when shopping online, especially around cross-shopping
- **Automated** faster insight generation with a web-based application using R Shiny

Infor Dynamic Science Labs, Cambridge, Massachusetts

Data Analyst

July 2014-Nov 2015

Successfully built predictive analytics into enterprise software to translate data into strategic business advantages. Actively contributed to business development and team growth, up from 8 to 17 members.

Example 1: Pricing Optimization in Distribution

- Improved both business revenue and margin by optimizing pricing decisions
- Designed and extracted customer **key performance indicators** (KPIs) from transaction history using **SQL**
- Defined pricing buckets with **customer segmentation** using **hierarchical clustering**
- Created what-if analysis and computed price elasticity using **regression models**
- Identified sales opportunities through data exploration with **Oracle SQL**
- Initiated, designed, and implemented interactive web applications using R Shiny to deliver analytics results

Education

Cornell University

Master of Engineering in Applied Operations Research

May 2014

Johns Hopkins University

Bachelor of Science in Applied Mathematics and Statistics

May 2013