

Teja P. Rasamsetti

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Professional Experience

Baker Hughes Incorporated

Principal Field Applications Engineer- Oklahoma City, Oklahoma

June 2014 – present

- Developed first machine learning algorithm for advanced drilling systems to maximize rate of penetration (ROP) and minimize BHA lateral vibration. Exceeded the benchmark by close to 15%.
- First to determine the interplay between surface parameters and downhole parameters and their effect on drilling vibration. Patterns were identified based on large datasets comprising 85 wells.
- Expertise in Multivariate Regression, Support Vector Machines, Decision Trees and Clustering Algorithms.
- Aggregated various data inputs using SQL, executed analysis in R and SAS, wrote custom programs in Python and prepared visualizations in Tableau. Used Amazon AWS for cloud computing.
- Proficient in inferential statistical analysis like t-tests, analysis of variance, chi-squared tests and correlation.
- Worked with production engineers for optimal wellbore design. Performed pre-well and post-well hydraulic calculations and Torque and Drag calculations.
- Assisted Sales for tender/bid proposals for following clients:- Sandridge Energy, Chesapeake Energy, AEP, and Repsol. Prepared semi-annual and quarterly operational performance reports for customer presentations.

Applications Engineer General- Oklahoma City, Oklahoma

2011 - 2014

- Main operations product expert for *AutoTrak Curve*, a major new product for Baker Hughes in 2011 and 2012. Sole applications engineer during the gate 3b and 3c phase of commercialization.
- Developed heat maps using R, Tableau and SQL to identify influence of different parameters while drilling.
- Evaluated the performance of two different prototypes of *AutoTrak Curve* by collating extensive information and recommended the preferred option to senior management (spanning operations, marketing, engineering and product management).
- Solve complex operational challenges primarily related to mechanical failures for premium products in US Land and Canada. Resolved issues through real-time monitoring systems and post well memory analysis.
- Provide technical expertise about AutoTrak Curve and its features to different geomarkets.
- Lead Field Engineer (MWD) for AutoTrak Rotary Steerables for Exxon Mobil and Devon Energy.

Senior Technical Support Engineer/Field Engineer- Paraiso, Tabasco, Mexico

2009 - 2011

- Improved drilling performance and reduced unproductive downtime on offshore and onshore oil rigs in our startup office. Selected the turbine type and restrictor sizes for 9 ½ and 6 ¾ BCPM 1.
- Coordinated product failure investigations. Implemented design changes specific to local market such as use of a segment protected valve in BCPM. Wrote local field operational manuals to improve knowledge base.

Senior Mechanical Design Engineer- Houston, Texas

2007 - 2009

- Conceptualized designs for the next generation *OnTrak*. Final designs were easier to manufacture, had less components and reduced bending moment stresses by 10%-30%.
- Led a team comprising nuclear scientist and mechanical designer to redesign *LithoTrak 4.75* that operates under nonstandard drilling conditions
- Won a technology presenters award at the annual companywide technology forum in 2008.

Education

Duke University, Pratt School of Engineering, Durham, North Carolina

2005 - 2007

Masters in Mechanical Engineering and Material Science.

GPA(3.8/4.0)

National Institute of Technology, Warangal (NITW), India

2001 - 2005

Bachelors in Mechanical Engineering.

Continuing Education: Pursuing professional education with MITx- Big Data. Completed more than 10 online Computation and Data Science courses from MITx and Harvardx.

Additional Information

Duke Graduate School of Engineering Fellowship, 2005. First place in National Mathematics Talent Examination at undergraduate level in 2002. Played for college Basketball team, 2002-2005. GMAT(97% percentile)
Software: Python, R, SAS, Apache Spark, Solidworks, Tableau, SQL, Matlab, Hadoop and Microsoft Office