

# Birinder Singh

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Blog: [TechnicalBlog](#)

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## Summary of Qualifications

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- Insightful technical and operational experience in the Upstream Oil and Gas industry
- Strong commercial acumen and numeracy and strong analytical ability
- Proven abilities in accelerating growth and generating client's loyalty levels
- Ability to show initiative in solving problems and drive to succeed
- Among top 5 in the batch of 45 students during the Graduation and Post-Graduation in Geophysical Technology from Indian Institute of Technology (IIT), Roorkee (2008-2013)

## Experience

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### Data Scientist in Training

Master of Data Science, The University of British Columbia, Vancouver 2018-2019

- Predicted two strongest factors in the survival of Titanic Passengers and Constructed a reproducible data analysis pipeline [GitHub\\_Repository\\_url](#)
  - - Software/Languages used: Python, R, Docker, Draw.io, GitHub
- Working on plug-in for automating formation detection in real time drilling using machine learning models trained on the offset well data.
- Gained proficiency in Supervised learning techniques such as Logistic Regression, Random Forest, SVMs, Naïve Bayes using the machine learning python libraries Scikit-Learn, Pandas, Numpy, Matplotlib and Seaborn.
- Gained proficiency in Unsupervised techniques such as K-Means.
- Attained proficiency in writing SQL queries to retrieve, analyze data from the relational database systems.
- Developed a Shiny app compiling the incidents of crime in major cities of USA. [ShinyApp\\_url](#)

### PetroTechnical Engineer

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#### Schlumberger Solutions Ltd. (Global Data Services HUB) Feb 2016 – Jan 2018

- Technical backbone of a 5 member Data Consulting team involved in processing and interpretation of 100+ wells per year generating over \$2M revenue for Schlumberger
- Streamlined the service delivery for major E&P clients by devising Standard Operating Procedures leading to reduction in the Turnaround Time by up to 20% with significant improvement in Service Quality
- Played a pivotal role in setting up of the Global Data Services HUB a center of excellence during major re-organization of Schlumberger interpretation centers leading to significant cost savings
- Selected for carrying out the Alpha testing of a next generation cloud based workspace capable of enabling users to access all the common workflows and applications via centralized servers
- Mentored 3 employees and 2 Interns, conducted On-Job trainings, evaluated their progress.

### PetroTechnical Engineer and Technical Sales Engineer

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#### Schlumberger Asia Services Ltd. ( July 2013–Jan 2016 )

- Monitored real time drilling operations and implemented accurate, time critical decisions to avoid potential hazards and manage costs effectively while optimizing well performance for the clients
- Led a team of 4 PTEs involved in advanced interpretations during second leg of Gas Hydrate Expedition in India successfully exploring 134tcf Methane Hydrates worth ~\$400B earning \$3.5M revenue for Schlumberger
- Replaced competition in horizontal well interpretation by executing 3DP resistivity inversion for the first time in the Indian Geomarket
- Among 3 PetroTechnical Engineers(PTE) selected out of 100 PTEs for cross segment training
- Planned and executed real time drilling of horizontal wells enhancing the production for the clients up to twice
- Proposed and implemented emerging technologies for the Indian National Oil Company (ONGC) generating additional revenue and establishing strong footprints in North East India

## Awards and Achievements

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- Winner of the Vancouver Whitecaps FC Datathon, Business Case-Sept 2018. Estimated merchandise purchase probability based on the time spent inside stadium and analyzed purchase behavior in terms of time of transactions.
- Received "Performed by Schlumberger" Award from Vice President, Wireline segment for the 1st Horizontal well drilled in Indian basement leading to increase in market share of acquisition segment by 15%, savings of \$2M and incremental revenue of \$5M
- Award letter from JAMSTEC for the vital role in the National Gas Hydrate Expedition (NGHP-02), considered most comprehensive gas hydrate field venture in the world to date, with participation of scientists from India, Japan and U.S
- Recipient of "Petro Technical Services Award of excellence" from Schlumberger for providing excellent client support as lead Petrophysicist
- Appreciation letter from OILMAX for identifying hydrocarbon zones in their first exploratory well in Cambay basin

## Education

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- **Master of Data Science** (2018 - June, 2019 Expected)  
The University of British Columbia, Vancouver, BC  
  
Grade Point : A+
- **Integrated M. Tech (Geophysical Technology)** ( 2008 - 2013 )  
  
Indian Institute of Technology, Roorkee, India  
  
Canadian equivalency: Masters (WES)  
  
Grade Point : 8.33/10

## Publications

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1. Vikas Jain et.al., 2018, New technique for accurate porosity estimation from logging-while-drilling nuclear magnetic resonance data, NGHP-02 expedition, offshore, India, doi.org/10.1016/j.marpetgeo.2018.11.001  
[Publication\\_url](#)
2. Mukhopadhyay, S., Singh, B. and Mohamed, H., 2015. Estimation of attenuation characteristics of Aswan reservoir region, Egypt. J. Seismol, DOI 10.1007/s10950-015-9511-2 [Publication\\_url](#)  
  
Estimated frequency dependent attenuation characteristics using Linear regression on the data of local earthquakes encountered during 2007-2009 in the Aswan Reservoir region, Egypt. Software used: MATLAB and SEISAN(Seismic Analysis Software)

## Extra-Curricular Activities

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- Delegate at a Policy Bootcamp organized by Vision India foundation for 150 delegates with diverse backgrounds to discuss public policy issues and to learn from experienced Bureaucrats, Members of Parliament and other change agents.
- Organizing Secretary of the biggest technical festival of India organized by IIT Roorkee and attended by over 3000 participants.
- Elected as the Joint Secretary of the student-faculty-alumni body at the Department of Earth Sciences, IIT Roorkee responsible for organizing year-round guest lectures and workshops
- Qualified the Certificate B examination of National Cadet Corps (NCC) Indian-Army Wing 3UK CTR and participated in the basic military training in small arms and

parades

- Volunteer at SEED - Corporate Social Responsibility program of Schlumberger: Organized awareness camps and counseling sessions for underprivileged students in the local government schools in Navi Mumbai