

PRANSHU TIWARI

836 Willard Street | Quincy, MA 02169 | (612) 716-3694
pranshu.ti12@gmail.com | linkedin.com/in/pranshu-tiwari-18973a10/

MANAGING CONSULTANT – STRATEGY & DATA SCIENCE

Global Enterprise Business Consulting Experience | Data Science Expertise | Proven Project Leader | IBM Sr Inventor [2017-2020]

Seasoned managing consultant with 14+Years of Exp and Inventor of 38 inventions with a track record of setting up and overseeing projects that streamline operations and drive transformations in efficiency for global enterprises in energy, insurance, medical imaging, and other industries. Currently working on how leverage AI to improve Digital Customer Experience, IT operations and Cloud. Experienced data scientist, skilled at designing and implementing solutions that provide businesses with actionable insights through software development, machine learning, and AI. Skilled project manager, with success leading large teams to design and implement solutions while fostering a culture of constant improvement and agility.

Key Accomplishments: Digital & AI

- Achieve 90% accuracy processing images of humans for detection of brain cancer based on images using Kera's Tensor Flow leveraging Neural Network and Maximum Likelihood (Northeastern University)
- Signal Processing Using Gabor Transformation for Sounds using self-developed function in Python
- Image Interpolation using Numerical Computation using self-developed functions in Python
- Developed performance test strategy for electrical outage reporting system, oversaw testing in production for a major American utility. (Xcel Energy)
- Led-digital transformation for consolidating front end and back-end Channel for Energy Utility/Insurance Sector (National Grid, MetLife: Small Market)
- Led Mobile Banking Strategy & MDM strategy for various clients including in Telecommunication Sector

Areas of Expertise

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|---|---|---------------------------------|
| • Business Transformation | • Bayesian/SVD/NN/Likelihood | • Data Warehouse Patterns |
| • RFP Preparation & Vendors | • CBM Based Application Rationalization | • Recommendation Systems |
| • Digital Customer Experience | • Energy and Utilities Industries | • Unsupervised Machine Learning |
| • Machine Learning Supervised | • Communications Industry | |
| • Data Driven Decision Making | • Insurance and Healthcare Industries | |
| • Text, Image and Signal Analysis | • Advance Metering | |
| • Matrix Factorization | • Infrastructure & Transmission | |
| • Dimension Reduction-Non Linear & Linear | • Data Governance | |

PROFESSIONAL EXPERIENCE

IBM Boston, MA
Managing Consultant **December 2008 to present**

Work with global enterprise clients to assess needs and operations, and propose solutions to business problems on assignments

- **Innovation Engineering & Data Science:** Develop intellectual property for IBM, leveraging machine learning and probabilistic models, deep learning, neural networks, graph theory, and deterministic models
Northeastern University

- Achieve 90% accuracy processing images of humans for detection of brain cancer, based on images using Keras Tensor Flow (Northeastern University)
- Achieved 70% accuracy in recurrent neural network-based text processing using Tensor Flow Python for prediction of stock prices (Northeastern University)
- Accomplished image reduction using Self Developed Functions based on SVD /Matrix Factorization and clustering for improved performance leveraging Python (Northeastern University)

IBM

- Leverage convolution neural network, LSTM networks for image classification and text mining using Keras Tensor Flow and Neural Net® (IBM)
- Created Algorithms on Pattern Prediction, Machine Learning Algorithms for 38 IBM Patents
- **Digital /Strategy Consulting & Program Delivery:** Develop strategy, design and deliver large scale transformation programs in the U.K., U.S., and India in the insurance, energy and utility, and communications sectors
 - Proposal Development for Sanctioning of New Projects for US Utility in US, UK(National Grid)
 - Strategized first of a kind mobile device management solution for a leading telecom in India
 - Advised clients on application rationalization and strategy for utilities/CSP in India and U.K.
 - Developed solutioning approach in mobile commerce for communication utility in Malaysia
 - Won IBM Mega Deal in North America for first of a kind MDM-based approach(Acapuloc Mexico)
 - Developed performance test strategy and oversaw testing in production for a major American utility
 - Develop IT strategy and road map for utilities including Rationalization
 - Data Quality Roadmap for Transmission Utility in UK, Telecommunication in India
- **Program/Project Management/BDE:** Advise clients on pricing approval through GPE,pricing for projects, solution design, team management and effort estimates, as well as metrics/sprint planning and IBM Contractual Management
 - Completed project management for micro-services based digital transformation for insurance client
 - GPE/Pricing and estimates & contract management using IBM GPE IBM tools (GTM:US team)
 - Project managed a gap-analysis program for two digital programs for insurance in U.S.
 - Won deals for application support for a utility in south and Midwest

WIPRO LTD

Delhi, India

Associate Consultant

October 2005 to November 2007

- Client Advisory, Project Management, and Consulting highlights include:
 - Received client appreciation for e-Tize change management program with 200% increase in users
 - Completed billing revenue management RFP for utility in India
 - Assessed opportunities for Unique ID project leading to India First UID number for all residents

EDUCATION & PROFESSIONAL DEVELOPMENT

Northeastern University, Boston

Master of Science, Mathematics Operations Research, August 2021

University of Wisconsin, Eau-Claire

Master of Science, Data science, 2021[Online]

Ecole Ponts Business School, GBS India

ENPC-MBA, 2005

University of Madras, India

Bachelor's Degree in Electrical Engineering -2002

IBM IDT-AI, Machine Learning, Member since 2017; Springboard Data Science Certification, IBM Sr Inventor(2017-2020)

- Signal Processing, FFT/Filtering
- Markov Chain & Applications

Machine Learning /AI experience

- Matrix Decomposition Techniques
- R, Python (Keras/Tensor Flow) Google Colab
- NumPy, SciPy, and NNET
- Mathematical & Platform Libraries on Neural Networks: Numpy, skit, Tensor, Scipy
- Regression and Model Selection
- Maximum Likelihood Estimation based models - LDA, QDA, GMM, Topic Modeling
- Image Analytics & Numerical Interpolation
- RNN /Auto-Regression
- Constraint Optimization
- Unsupervised Machine Learning

Client Management

- IT Strategy
- Advanced Analytics
- Project Scoping & Customer Transformation
- Project Management
- Enterprise Architecture
- Program Planning
- Process & Gap Analysis
- Vendor Management & Business Case Analysis
- Business Development

AWARDS

- 3 Plateau Award from IBM CEO 2017, 2020
- Honored IBM Senior Inventor in 2017
- Manager Choice Award 2014, 2017
- Treasured Wild Ducks 2016
- Shared Expertise 2016
- Top Contributor 2015, 2016, 2017

PATENTS AND PUBLICATIONS

SUBMITTED OVER 50 PAPERS/DISCLOSURES INCLUDING 3 PATENT GRANTS:

- Predicting Stock Market Price leveraging Recurrent Neural Networks and Text Mining-Northeastern University (Python)-Published in Research Gate US
- [Developed patent on framework leveraging all modes of \(data center\) virtual machine operations](#) to improve energy efficiency leveraging Markov Chain (Patent Granted: 976663)
- Filed Patent on [Method and Framework to select optimal Payment Instrument](#) (Patent id: 93211237)
- Filed [Methods and systems for Providing Data compliance & Business Value](#) based on probabilistic model (Patent id: 93228034)
- Filed [Electrical Device Degradation leveraging ANOVA modeling](#) (Patent Grant: 10558206)
- Published paper on [Role of Analytics & Big Data for Predicting Risk for Insured and Eliminating Fraud leveraging Lasso and Ridge Regression](#) in R
- Published [Method and framework for AI driven dynamic plurality-based decision engine](#) to identify optimal path and cloud provider for routing in multi cloud environment
- Sentimental Analysis of Tweets using Tweeter API in R using Pattern of Words.-Word Press.com
- Drug Recommendation Model using Document 2 Vector Models, Neural Networks and Recommendation Systems (Collaborative Filtering)
- Prediction of Energy State leveraging by Probability Matrix using Markov Chain & Eigen Vectors