PARIDHI CHOUDHARY

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Education

Carnegie Mellon University	**Pittsburgh, Pennsylvania**
Master of Information Systems Management (3.7/4.33)	May 2018

Indian Institute of Technology Bombay	**Mumbai, India**
Bachelor of Technology in Metallurgical Engineering and Material Science (7.5/10.0)	May 2013

Key Projects

Classification of Handwritten Digits using Neural Networks, CMU   Aug 2017 – Dec 2017
- Implemented the layers of a CNN (in Python) based on the LeNet architecture to classify 10,000 digits from the MNIST dataset
- Trained CNN on 60,000 digits, using Stochastic Gradient Descent (accuracy of 99.04%) and analysed loss function behaviour

Classification of IMDB Movie Reviews, CMU   Aug 2017 – Dec 2017
- Modelled, developed and trained 2 classifiers – Logistic Regression using Gradient Descent and Naïve Bayes to classify reviews
- Utilized movie reviews (1500-word vocabulary) from the IMDB Large Movie Review dataset by Mass et. al to assess the classifier accuracy as a function of the MAP and MLE parameter estimates

Database Design and Management, CMU   Sep 2017 – Oct 2017
- Designed a database schema and implemented database system to support business operations of a home builder website
- Enforced integrity, enterprise, domain constraints and database level authentication for permissions to view/modify data
- Developed procedures, triggers, scheduled jobs using PL/SQL for consistency, provided SQL scripts to generate reports
- Prepared a Data Warehouse Migration Guide, identifying FACT and dimensions for potential migration to data warehouse

Work Experience

Graduate Teaching Assistant, Advanced Relational Database Management   **Pittsburgh, USA**

Integrated Decision Systems, Data Science Intern | Forecast Modeling   **Singapore,** May – July 2017
- Improved model forecast accuracy by 51% using characterization of inter-order duration and change point analysis
- Enhanced model robustness by including Decision Tree (CART & CTree) and LSTM neural networks on top of GLM models
- Lowered RMSE by 80% by implementing hyper parameter optimization and creating an ensemble of regression and LSTM models
- Developed the data pipeline including SQL scripts, python and R scripts to pre-process, analyse and predict from raw data

Credit Suisse, Credit Risk Analyst | Risk Management   **Mumbai,** Aug 2014 – July 2016
- Managed processes to calculate wrong way risk quantifying potential future exposure due to Counterparty-Trade relation
- Developed Regression models and historical simulation which improved accuracy by 45% over correlation matrix
- Optimized SQL queries, ensuring efficient use of data tables and temporary datasets which reduced run-time by 30%
- Automated daily monitoring applications using VBA removing manual supervision from 80% of the processes

Deloitte Touche Tohmatsu, Analyst | Management Consultancy   **Mumbai,** June 2013 – July 2014
- Supply Chain and business re-engineering for World's leader in Confectionary resulting in cost-savings solutions, higher profits
- Optimized supply chain network to reduce operational costs, In-Vehicle travel time & network length; developed a model in C++
- Built an excel based model to rationalize salesforce - regression model helped identify the degree of rationalization pan-India

Skills

Languages: SQL, PL/SQL, Python, R, Java, Scala, Spark, Kafka, Samza
Courses:
Computer Science: Algorithms and Data Structures, Machine Learning, Applied Data Science, Database Management Systems, Distributed Systems, Cloud Computing, Object Oriented Programming, Android Application Development
Statistics: Statistical Inference, Probability and Stochastic Processes, Statistical Structure in Data, Linear Regression and Time Series, Categorical Data Analysis, Modern Regression, Operations Research

Leadership and Achievements

Entrepreneurship Cell, IIT Bombay   2011-2012
- Enabled angel investments of $18 million in 2 start-ups through Pitch it!-Start-up funding platform
- Negotiated 23 logistics & media deals, including Indian Express, worth $30,000 (35% YOY growth)
- "Certificate of Leadership" by National Entrepreneurial Network, funded by Wadhwani foundation