Tokyo, Japan
LinkedIn

DINESH DAULTANI

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PROFESSIONAL EXPERIENCE

Research Scientist	**Rakuten**	**Apr 2018 – Present**

Technologies: Scikit-learn, Keras, TF, CNN, RNN, RL, computer vision, natural language, docker, time series

- **Summary:** Use traditional machine learning, deep learning and reinforcement learning to solve Rakuten's research problems. Collaborate with other researchers to deliver diverse systems for various business units
- **Market Trading:** Gained more than 7% ROI / year in daily trading of products such as forex currency pairs, bonds, and indexes by developing end-to-end machine learning models based on historical market macroeconomics data for assets under management (AUM) of tens of millions of dollars
- **Cybersecurity:** Design and develop a user and entity analysis (UEBA) tool to detect anomalies in Rakuten infrastructure from network text logs by convolutional neural networks and multi-modal learning approaches
- **Credibility Modeling:** Increased the approval rate of credit card merchant customers by 5% by developing a credibility scoring model and segmentation of merchants that led to increase in revenue of millions of dollars
- **Ad Banners Optimization:** Research about current recommendation systems, platform & frameworks used in industry and academia. Develop a contextual bandit model to show banners on Rakuten ecommerce websites

Machine Learning Engineer	**CRTCL**	**Aug 2017 – Nov 2017**

Technologies: Python, TensorFlow, Natural Language Processing, Data Pipelines, Sentiment Analysis, Git

- Worked with a Blockchain startup where I built data pipelines, applied natural language processing and identified trading patterns in sentiments to trade on cryptocurrencies such as Bitcoin, Ethereum etc.

Data Scientist Intern	**RR Donnelley**	**Jan 2017 – Aug 2017**

Technologies: Python, Scikit-learn, Tableau, Experimental Design, MS Excel, R, Feature Engineering

- Worked with marketing research team to target customers for various healthcare, insurance and retail store clients by applying machine learning, experimental designs, segmentation, statistical modelling etc.
- Trained different optimized supervised and unsupervised machine learning models based upon the problem to increase the responses of direct mail marketing campaigns for various clients.

Research Assistant	**Illinois State University**	**Aug 2016 – May 2017**

Technologies: Python, computer vision, Theano, Caffe, image transformation, Java, optimization

- Helped professor in reproducing best research papers in computer vision domain, specifically on MNIST & CIFAR-10 dataset to optimize the error rate by combining new image transformation ideas

EDUCATION

Normal, Illinois	**Illinois State University**	**Aug 2015 – May 2017**

- Master of Science in Information Systems, May 2017. GPA: 3.92/4
- Graduate Coursework: Machine Learning; Research Methodologies; Advanced Database Management

Indore, India	**RGPV**	**Aug 2010 – June 2014**

- Bachelor of Engineering in Computer Science, June 2014. GPA: 7.43/10
- Undergraduate Coursework: Algorithms; Data Structures; Cloud Computing; Operating Systems; Networking

PUBLICATIONS

- **Ensembles optimization:** Invented new approach to find best optimized combination of models by using genetic algorithms and fitness functions based on trading strategies metrics. (Patent Pending)

ADDITIONAL EXPERIENCE

- **AI Trainer (2019):** Delivered trainings on ML and Deep Learning for business & tech employees in Rakuten
- Founder and organizer of Reinforcement Learning Study Group in Rakuten