

Kenneth Rithvik

Data Science, Machine Learning

About Me

Currently open to full-time opportunities as a data scientist with 2+ years experience in data science as well as 3+ years in software development. Completed Master's degree on Data Science and Machine Learning at the National University of Singapore. Experienced at leveraging data science and machine learning knowledge in the development of intelligent business systems. Worked on developing solutions from scratch and deploying to production.

Experience

Data Scientist Engineer, 07/19 - present, [Micron, Singapore](#)

Data Scientist IAP, 08/18 - 04/19, [Fundnel, Singapore](#)

- Analysed data of around 3000 startups that sought funding on our platform. Built predictive and descriptive models to describe the performance of these startups based on their industrial data, financial data, etc.
- Analysed around 12000 investor's data on our platform and the preferences provided by them. Recommended the right startup based on their mandates as well as interests obtained through public resources.
- Deployed machine learning models in a production environment on the cloud. -Built reports to track the performance of the company and the KPI's that can be used to measure them.
- Designed data warehouse that can keep track of our investor and startup data as well as all activities performed on our website to be used for association mining.

Software Engineer, 09/15 - 12/17, [Tesco, Bangalore](#)

- Collected data from different build tools like github, jenkins, etc. Analysed this data to evaluate performance of developers and profile the quality of code that was being built.
- Designed and operated NoSQL as well as SQL databases.
- Collect and Analyse data from our servers and derive KPI's that can be actioned upon by upper level management.
- Automatic deployment and scripting of Cloud resources (AWS,GCP).
- Containerization of applications using Docker.
- Agile workflow with CICD (Github,Jenkins).
- Full-Stack development using Javascript stack with MongoDB and SQL databases.

Machine Learning Trainee, 01/15 - 05/15, [Defense Research Development Org, India](#)

Implemented naive bayesian classifier for threat detection and classification of vehicles based on radar data.

Software Tools

- | | | |
|------------------------------|-------------------|-----------------|
| • Tensorflow, Keras, Pytorch | • Scikit-Learn | • Numpy, Pandas |
| • Tableau | • JMP | • RStudio |
| • Excel | • SQL, NoSQL DB's | • WebAPI |
| • Github | • Docker | • Kubernetes |
| • AWS | • Terraform | • Jenkins |

Education

Master's, Knowledge Engineering, 2018 - 2019, [National University of Singapore](#)

Curriculum: Machine Learning, Data Science.

Main subjects: Data Science, Data mining, Data analytics, Data Visualizations, Data Warehousing, Machine Learning, Deep Learning, Intelligent Systems for Business Analytics, Text Mining, Customer Relations Management, Machine Learning on the Cloud, Web Analytics, Computer Vision, Web-Scraping

Bachelor's Degree in Computer Science Engineering, 2011 - 2015, [DSCE, Bangalore](#)

Main subjects: Operating Systems, Data Structures, Design and Development of Algorithms, System Software, Software Engineering, Computer Networks, Object Oriented Programming, Database Management Systems

Projects/ Research

Intelligent Forex Trading System for wealth creation

Developed a system that was trained on historic data of forex exchange rate changes of key currencies in the world. Various time-series forecasting methods were employed to predict future change in exchange rates like ARIMA, auto-regression, exponential forecasting, etc. This data was later used to estimate the amount of money that can be invested in each currency at any particular moment in time. This hybrid system was able to generate around 8% interest over a year when evaluated using historic data.

Techniques: time-series forecasting, expert systems, genetic algorithms

Prediction of hard-drive failures at Data-centre

In this project, we have analysed the Backblaze data-centre hard drive failures and used several prediction models for classification. We evaluated the prediction performance among Decision Tree, Support Vector Machine (SVM) – Linear, Naïve Bayes, Random Forest, Generalized Linear Model and Extreme Gradient Boosting (XGBoost) models across different time intervals. We considered the temporal aspects and observed better results. The next most important task is to introduce these prediction models into the real world. The main goal was to predict hard-drive failures before they occur to reduce down-time.

Techniques: SVM, Boosting, Random Forest

Smart Gait tracking system

In this project an LSTM classifier (for real-time human motion recognition through IMU sensor inputs) is implemented. Besides building the classifier and verifying its performance, the output of the classifier is shown in real-time visualization. This system can measure knee movement, strain, angle and processes the data using a neural network. This system would be helpful for orthopedic doctors to get a deeper insight into their patient's physical activities outside of their clinical settings. A smartphone based physiotherapy solution would also be feasible with this platform.

Techniques: LSTM, Neural Networks, Deep-Learning, IOT

E-Commerce website product classification

Used images of different product categories to train a neural network to classify them automatically. Used various predefined as well as custom architectures to train the model. Also tried transfer learning on networks trained on the imagenet dataset.

Techniques: Computer Vision, CNN, Ensemble models, Transfer Learning

Cancer mutation classification from clinical reports

Predicting the existence of cancer based on textual data from clinical reports that describe the symptoms and prescriptions of patients.

Techniques: Text mining, NLP, Language modelling

More on github ([<https://github.com/kennethrithvik>](https://github.com/kennethrithvik)) >>

Programming:	• Python, R, Shell, Javascript
OS Preference:	• Debian, RHEL, Linux distros
Languages:	• English, Tamil, Hindi, Kannada
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