

Ryan Roy

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P R O F I L E Experienced, innovative and persevering computer science engineer with over 5 years of experience working with the design and development of real time business applications that are rooted in deep learning, machine learning, and other probabilistic and statistical modeling methods. Prof icient communicator, adept in breaking down and presenting complex mathematical and technical know how to a non-technical audience. Skilled in prototyping, coding, automation and visualization (end to end delivery). Committed to work as a collaborative and assertive team player who likes to take responsibility and thrives under pressure. Result oriented

Willing to relocate: Anywhere

Work Experience

Research Assistant

Biocomplexity Institute - Bloomington, MN

August 2021 to March 2022

- Developed surrogate models for in-host and epidemiological time-series forecasts using RNN (Bi-LSTM) layers, attention-units (implemented using TensorFlow). using deterministic, stochastic - SIR models for automated data-generation
- Validated model performance using Google's Temporal fusion transformer as the baseline. Functionalities of the model included forecasting and inverse-prediction.

R & D Engineer and Wealth Manager

Finpeg - Thane, Maharashtra

June 2019 to June 2020

- Data pipeline and transformation using AWS and SQL-querying of existing databases. Also worked with DB solutions : Oracle, Teradata
- Designed algorithm that approximates the optimum equity-debt deployment ratio (or equity-exposure) using static covariates like PE,PB ratio, and time series data (like daily movement of stock, bond prices) using tools such as RNNs , transformers (implemented in PyTorch)
- Worked on rendering visualization of data using libraries such as matplotlib, Tableau, python-widgets to explain important decisions to HNWIs

Software Developer

Zycus Infotech - Mumbai, Maharashtra

June 2017 to June 2019

- Created the architecture and implemented the code for internal monitoring tool called MonitSole capable of performing automated monitoring, segmentation, and troubleshooting of integration errors.
- Worked as a part of continuous integration, continuous deployment (CI-CD) for automating the deployment of aforementioned project and other peer built project on test-environment using kubernetes.

Research Intern

Reliance JIO Infocomm - Navi Mumbai, Maharashtra

May 2016 to May 2017

- Built the ML data-pipeline for supervised classification techniques including SVM, random-forests (using libraries such as MLlib,scikit-learn)and other ensemble methods involved in the process of campaign management (recommendation engine for services provided by the company) Also included unsupervised method based probing of unstructured consumer data

Education

Master's degree in Intelligent systems engineering

Indiana University-Bloomington - Bloomington, IN

January 2021 to Present

Bachelor's degree in Computer Science

F.C.R.I.T, Vashi - Mumbai, Maharashtra

June 2013 to June 2017

Skills

- Python AWS Git Computer vision Deep Learning RDBMS Hadoop Time series analysis
- RNN, LSTM AzureML Game-theory Apache Spark Unstructured data Model risk management Signal processing TensorFlow CD-CD PyTorch SQL Machine Learning Fintech Statistics Kubernetes
- Python
- Git
- Deep learning
- Computer vision
- AWS
- Hadoop
- RDBMS
- Time series analysis | LSTM | RNN |
- Transformers | Auto-encoders | Self-attention
- Signal processing
- Model risk management
- Fintech
- TensorFlow
- Biotech
- PyTorch
- CI/CD
- Reinforcement learning
- Kubernetes
- Statistics
- Machine learning

- MySQL
- MongoDB