

PROFESSIONAL EXPERIENCE

Senior Data Scientist **Headspace, Los Angeles-CA** **Nov 2020 - Present**

- Promoted to Personalization Domain Lead to design and deploy the machine learning-based model for the personalized recommendation system that improves engagement and supports long-term habit formation.
- Led team of machine learning engineers to develop and deploy machine learning models resulting in a 5% increase in content engagement and deployment of an end-to-end production-grade recommendation system
- Established the A/B testing framework in the machine learning team, build the thought leadership across the company for an experiment-driven culture.

Data Scientist II **Ticketmaster (Live Nation), Los Angeles-CA** **Sep 2019 – Oct 2020**

- Delivered Machine Learning Interpretability and model monitoring system using latent factors of Matrix Factorization based model using Python. Created data pipelines using AWS APIs. Integrated DOMO for monitoring and email alert system.
- Developed Deep Learning based Natural Language Processing Model for artists and events. Extracted features for Ticketmaster recommendation system using Spacy, Fasttext and sk-learn. Create data pipelines for in-house and open data.
- Deployed the application on AWS infrastructure using terraform, AWS Step-function, Elastic Container and AWS Fargate.
- Planned and Administered A/B testing for the impact Test of the new features on In-production Recommendation system.
- Applied statistical test like score-test to determine the sample size, statistical power and significant statistics for the Control-Treatment group. Utilized python and statsmodel packages to run simulations. Created report and documentation for test.

Intelligent System Developer **Owned Outcomes Inc, Las Vegas-NV** **Oct 2017 – Aug 2019**

- Collaborated with pharmacies, hospitals to create a model for predicting patient risk scores, factors using EHR, census data
- Upgraded a rule-based model to ensemble machine learning predictive model using regression and XGBoost. Improved the patient adherence by 21% leading to reduced costs for healthcare insurance providers
- Conducted literature review, preprocessed data, applied statistical modeling to extract sensitive information from EHR data
- Extracted patterns from hyper-dimensional clinical and census data using t-SNE and UMAP. Reduced feature space using FAMD, CCA and Randomized SVD. Shared results with medical officers and statistician
- Built and integrated custom python package using Plotly, Celery (RabbitMQ) for Bigdata visualization in Django app
- Saved medical researcher time by achieving 13% increase in silhouette score over traditional K-Means clustering

Systems Engineer **Tata Consultancy Services, India** **Dec 2012 - Jun 2015**

- Worked on enhancement project for internal development tracking, .
- Created reporting and visualization tool.
- Automated report generation, monthly dashboard, and analytical processes for team. Used Java, Adobe Flash and MySQL server. Created client website and build web application to improve client interaction.
- Reduced manual workload by 10-15 hours monthly. Project used among global team members.

EDUCATION

Orlando, FL **University of Central Florida** **Aug 2015 – May 2017**

- Master of Science in *Computer Engineering*
- Graduate Research Assistant, Centre for Research in Computer Vision, UCF

India **Rajiv Gandhi Technological University** **Aug 2008 – June 2012**

- Bachelor of Science in *Electrical and Computer Engineering*

TECHNICAL SKILLS

- **Languages, Framework:** Python, Java, R, SQL, MATLAB, Django, Graphene, TensorFlow, Sci-kit Learn, PyTorch
- **Tools:** Unittest, Coverage, Sphinx, read-the-doc, JIRA, Git, Gitlab, Docker, Kubernetes
- **Database and Cloud:** PostgreSQL, MySQL, T-SQL, AWS, Floyd Hub, Azure

ACKNOWLEDGEMENTS AND PATENT

- **Patent: System and Method Content Across Multiple Form Factors** – United States Patent (Sial et al)
- **Talk:** Delivered session at 6th Annual Global Big Data Conference, 2018 on *Large Scale Machine Learning*
- **Winner, Royal Bank of Canada & Microsoft Hackathon (2017):** Designed customized recommendation system for profit-based crypto-currency trading; Developed and deployed on Microsoft Azure cloud in 36 hours.