

# Shashank S

## Data | Product | Design

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#### PROFESSIONAL EXPERIENCE

#### Glance, InMobi

Machine Learning Engineer 3

2022.07 - present

- Design and develop a hierarchical recommendation system Ø, modelling for the proportion of modalities based on user affinity as the first layer; build on ideas from Multi Armed Bandits(v1), Elo Ratings(v2)
- Develop a clustering based Look-alike model for sparse users, increasing engagement by 5%; moving users to "dense" faster
- Explore diverse ML models, including User-level Logistic Regression, Reinforcement Learning with MABs, Probability State Machines, Popularity, and Linear models
- Direct a high-impact team, delivering recommendations to 100M+ DAUs 

  ø under 500ms latency, across two prominent OEMs.
- Lead Automation Platform for ML systems, implementing production-grade practices  $\varnothing$ , Metrics (Neptune) setup, system re-architecture, Model Controller (profiling, optimization), pipeline optimizations, and dashboarding (Superset, Tableau).
- Other projects: Event-driven Personalization using PySpark Structured Streaming, CGen, and Events Framework across various versions.

Data Scientist 2 2021.05 – 2022.06

- Full Stack Data Scientist involved in: design systems, data engineering, model building, deployments, monitoring and experimentation.
- Build a graph based consumer-creator recommendation system, serving a million daily active users
- Design and deploy a GBM based image recommendation system for a cohort of 10Mn DAU, operating under 50ms latency
- Automated quiz generation over live video stream in real-time; PoC on YouTube Live Streams

## Bright Money 🔗

Data Scientist 2021.01 – 2021.04

- Design and productionize the flagship Debt Manager an end-to-end AI system that analyzes the finances of an agent, collects the money required in a distributed fashion when affordable, pays the minimum dues of the credit cards; all the while maintaining the state of all cards and payments.
- Build the system on AirFlow and Django to serve 10's of thousands of users, with close to \$100k worth of transactions flowing through the system every day.

Junior Research Scientist 2019.06 - 2020.12

- Founding Data Scientist, involved in all things Data Science
- Various zero-to-one products like Bills identification, affordability prediction, overdraft prediction, liability inferences
- EDA, time-series analysis, various predictive models (income, expense, balance, affordability, overdraft), segment analysis, user behaviour tailoring
- Work with product to optimize for metrics like retention, activation, monetization

PUBLICATIONS		
Automated Debt Management Patents, USPTO  Foundational work leading up to the patents US20220261886A1 Ø and US20230075411A1 Ø	2021	
DL Segmentation and Quantification of Meibomian Glands,  Biomedical Signal Processing and Control   Present a strategy for segmentation of Meibomian glands using Convolutional Neural Networks.	2019	

### **EDUCATION**

## Bachelors, Computer Science and Engineering,

2014 - 2018

Sir M. Visvesvaraya Institute of Technology

- First Class with Distinction
- Electives: Pattern Recognition; Artificial Intelligence; Clouds, Grids and Clusters
- Thesis: Image Regeneration with Generative Models  $\mathscr Q$

PROJECTS		
<b>Dark Money,</b> the personal finance dashboard you need ⊗	2023.12	
<b>Color Mood,</b> find your favourite color of your current mood ∂	2023.08	
diffAKI, pictionary, with Stable Diffusion ⊗	2022.09	
<b>Wazir,</b> the general purpose image and text combinator $\mathscr{D}$	2023.02	
<b>Ghost Game,</b> multiplayer game where you don't complete the word. ⊗	2021.07	
Image Regeneration w/ Generative Models, semantic Inpainting &	2018.05	
<b>Pretty Pixel,</b> manipulate a 3D playing field of stars ⊗	2017.07	
<b>Souffleur,</b> smart speech prompter while on stage $\varnothing$	2016.01	

#### **CERTIFICATES**

- Neural Networks and Deep Learning ∂
- ML Stanford University, Coursera 🔗
- Android Developer Nanodegree, Google, Udacity  ${\mathscr O}$

## **EXTRACURRICULARS**

## **Volunteering**

• Section Leader in Code in Place  $\mathscr{D}$ , Stanford University

### **Honours**

- ACM ICPC 2015 ∅, Honorable Mention
- Letter of commendation by Minister of HRD  $\mathscr D$  , Kendriya Vidyalaya, AISSCE (12th Board)