# 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 🔗 , 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 🔗 under 500ms latency, across two prominent OEMs.
- Lead Automation Platform for ML systems, implementing production-grade practices 🔗 , 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*                                                    2021
  Foundational work leading up to the patents US20220261886A1 🔗  and US20230075411A1 🔗

**DL Segmentation and Quantification of Meibomian Glands,**                                       2019
*Biomedical Signal Processing and Control* 🔗
  Present a strategy for segmentation of Meibomian glands using Convolutional Neural Networks.

## EDUCATION

**Bachelor of Engineering, 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 🔗

**Master of Science, Computer Science,**                                                          2024 – present
*Georgia Institute of Technology, OMSCS*

## PROJECTS

**Dark Money,** *the personal finance dashboard you need* 🔗                                       2023.12

**Color Mood,** *find your favourite color of your current mood* 🔗                                2023.08

**diffAKI,** *pictionary, with Stable Diffusion* 🔗                                                2022.09

**Wazir,** *the general purpose image and text combinator* 🔗                                      2023.02

**Ghost Game,** *multiplayer game where you don't complete the word.* 🔗                           2021.07

**Image Regeneration w/ Generative Models,** *semantic Inpainting* 🔗                              2018.05

**Pretty Pixel,** *manipulate a 3D playing field of stars* 🔗                                      2017.07

**Souffleur,** *smart speech prompter while on stage* 🔗                                           2016.01

## CERTIFICATES

- Neural Networks and Deep Learning 🔗

- ML Stanford University, Coursera 🔗

- Android Developer Nanodegree, Google, Udacity 🔗

## EXTRACURRICULARS

**Volunteering**
- *Section Leader for **Code in Place**, Stanford University*
  - 2021 🔗 , 2023 🔗

**Honours**
- *ACM ICPC 2015* 🔗 , Honorable Mention
- *Letter of commendation by Minister of HRD* 🔗 , Kendriya Vidyalaya, AISSCE (12th Board)