Ashish Gupta

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Summary

Experienced ML Engineer with a strong background in building Recommendation Systems and large-scale distributed systems. Seeking new opportunities in ML roles to apply my knowledge and contribute to solving complex problems.

Education

Master of Science(M.S.), C.S. *(Machine Learning Specialization)* — Aug 2018 - Mar 2021
Georgia Tech, US

Bachelor of Technology (B. Tech.) — May 2006 - Aug 2011
IIT Roorkee, India

Experience

Meta (Facebook) — Aug 2020 - Present
Machine Learning Engineer — *London, UK*

– Tech Lead in Meta's AI Innovation team focusing on building modern recommendation systems for Facebook & Instagram Reels and Feed Ranking use-cases.
– Developed and implemented user-understanding technologies and ML models to address key challenges in reel ranking and candidate retrieval.
– Created social interaction graph ($\sim$3B nodes and $\sim$300B edges), trained and experimented with different architectures of GNNs (GIN, GAT, etc.) to understand user behavior and leveraged transfer learning to improve recommendations.
– Successfully achieved a 0.3% increase in FB Reels *watch-time(WT)*, contributing to 5% of the company's *WT* goal.
– Experienced in recommendations stack (candidate retrieval & ranking), training and shipping deep learning models, data pipelines, and offline and online evaluations.
– Worked with research intern to leverage representation learning to solve cold-start user problem in Recommendation Systems. Published paper to demonstrate that its possible to tackle cold-start problem without meta-learning techniques
– Led a complex cross-function heavy ads project for Facebook's ad surfaces. The scope of the change included 6 teams and 20 ad surfaces. The breaking change in the 12 graph-APIs was impacting $\sim$100k external developers (link).

Flipkart — Jul 2017 - Aug 2020
Senior Software Engineer-3 — *Bengaluru, India*

– Leveraged machine learning capabilities to predict customer anxiety in the event of delayed order delivery, and initiate proactive actions to improve customer experience.
– Led a team responsible for the post-order customer experience, including the order confirmation and order details APIs (scale of $\sim$15k peak QPS)
– Redesigned the aggregator service, decreasing API response time to *550ms* from *1200ms*, decoupling UI deployment from the backend, reducing time-to-market, accommodating new business requirements, and supporting AB testing.

Rokitt (Centrica) — May 2015 - Jul 2017
Senior Software Engineer — *Bengaluru, India*

– Developed an ML classification model for a data-discovery software system for discovering information in data, as well as finding relationships among multiple databases with up to *90%+* accuracy.
– Contributed to the rapid prototyping, conceptualization, and development of *ToFrom*, a travel platform that allows users to search, book, and pay for flights and hotels. Was responsible for the e2e development of *flights* module.

MakeMyTrip — Dec 2013 - May 2015
Senior Software Developer — *Gurgaon, India*

– Designed and developed a complete referral application for MakeMyTrip.
– Developed the core of the user-service APIs for user registration, login, and personal information.

Mphasis(hp) — Jun 2011 - Dec 2013
Software Engineer — *Pune, India*

Publications

– Is Meta-Learning the Right Approach for the Cold-Start Problem in RecSys? *(Submitted to KDD 2023) Paper Link*

Technical Skills

– ML, AI, Recommendation Systems, Distributed Systems, PyTorch, scikit-learn, data pipelines, python, java