Sagar **Joglekar**, Ph.D.

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London, UK

I bring forth over 7 years of experience across different stages of technology development including blue sky research, applied research, building products, and leadership. I am interested in leading impact using a pragmatic combination of data science and ML engineering to solve business problems.

Experience

Machine Learning Scientist, Expedia Group, London, UK 07/21–Now

I lead development of ML driven products that solve ranking, curation, and quality problems for our customers. Some salient projects are

- I lead the development and delivery of ML driven service that moderates user generated reviews. This service saves Expedia upwards of $ 100k annually.
- I lead the discovery and benchmarking of generative language models for reviews text tagging, simplifying the pipeline for adding newer tags.
- Build common set of tools that help us to incorporate explain-ability into our models.
- Conduct research and development sprints to discover newer ideas.
- Be a champion for the work, build stakeholder relationships, and communicate about the work across cross-functional teams.

Research Scientist, Nokia Bell Labs, Cambridge, UK 06/19–07/21

I led blue sky research projects, developed scalable prototypes, and mentored others in their research journeys. The role spanned two broad impact areas:

- **External impact** I developed methods and frameworks which could help us quantify social dynamics using large scale data and tools from statistics, Computer vision, Natural language processing, deep learning, and complex networks. This work has been published in over **15 top-tier scientific papers** and has resulted in **two** patents.
- **Internal impact** Designed and built tools for data processing, sensing, and sense-making problems covering a wide range of applications inside Nokia's internal ecosystem. Developed API services and prototypes that wrapped the research models. Mentored interns and junior scientists

Part-time engagements 09/15 - 06/19

While working on my Ph.D. at King's college London, I remained in touch with the industry in different capacities. Some salient engagements are:

- **Research internship, Nokia Bell Labs, Cambrdige, UK, 06/17 - 11/17**: Worked on explainable deep learning models that modelled the perception of intangible attributes like beauty, safety and liveliness of urban environments.
- **Head of Research, Firedrop.ai, London, UK , 06/16 - 06/17** : I led the research and development at Firedrop to understand feasibility of different machine learning algorithms for their product. I developed their aesthetic ranking algorithm and helped develop other key features for their product.
- **Data science consultant, HackMasters, London, UK , 03/16–05/19**: I consulted HackMasters in the capacity of a data scientist/engineer on projects that covered areas of data governance, data driven strategy, or designing/prototyping machine learning systems.

Senior Software Engineer, Citrix Systems (now LogMeIn), Santa Barbara, U.S.A 02/12–09/15

I designed and implemented several proprietary network communications platforms libraries for Android, iOS and the web. Some salient achievements were:

- I led the design and development of the network communications platform for the then newly launched GotoMeeting web client. I designed and implemented a brand new protocol for bandwidth optimized transport of screen-sharing data across HTML5 (web), native, and mobile clients.
- Helped develop a centralized, API first platform, packaging Citrix's communications protocol stack. This culminated into a scalable and maintainable communication layer which is now being used across all video conferencing products at Citrix.
- Part of the inventors team for GoToSeeit, which augments the remote assistance product "GotoAssist" with real-time augmented reality annotations and audio. This innovation allowed GotoAssist to expand into the remote support market.

Research Engineer, Infosys Research Labs, Pune, India 07/08–07/10

The key responsibilities of this role were :

- Research and development of solutions, exploring use of cutting edge computer vision in digital rights management.
- Produce keystone IP for digital convergence and rights management domain.

Technical skills

- **Programming languages:** Python, Java, C++, Javascript
- **Machine Learning frameworks:** Pytorch, Tensorflow, OpenCV, Scikit-Learn
- **ML Ops Frameworks:** BentoML , Flask , Docker, Nodejs , Django, GCP
- **Data analysis and mining:** Databricks, PySpark, Pandas, Numpy , NetworkX
- **Project management:** Agile , Kanban.

Education

Doctor of Philosophy (Ph.D.), Computer Science, **King's College London, U.K.** 2015–2019
I was awarded the King's India Scholarship, which is given to one Indian citizen each year. I worked on my Ph.D. thesis on methods to quantify the perception of subjective experiences using Deep learning and complex network models.

Master of Science (M.S.), Electrical and Computer Engineering, **U.C. Santa Barbara, U.S.A.** 2010–2012
Double majored in signals processing and distributed networks. Worked on HDR video imaging for in-vivo fluorescent bio-microscopy as my research project, with the Systems and Bio-Imaging lab at UCSB.

Bachelor of Engineering (B.Eng), Electronics Engineering, **University of Pune, India** 2004–2008

Publications & Patents

I have lead or co-authored over 40 scientific publications in top tier peer-reviewed conferences and journals (e.g. The Web Conference, ICWSM, CSCW, Royal Society, Nature, JMIR etc.), and multiple patents

Research Demos

FaceLift :
Beautifying neighbourhoods using crowd sourced signals of urban beauty, deep learning, and generative models. :

Vitality from the Sky
Testing Jane Jacob's vitality theory, at scale, using representations learnt from satellite images. :

Humane-AI
Adding humanity to dialogues in healthcare by discovering crowd's medical-speak from mining social media and open sourced medical data. :

Meetcues
Bringing cues of the face-to-face interactions to the online meetings with the help of body and language signals.