

Anjan Goswami

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Objective: *AI, Search, and Data Executive*

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Executive Summary

Accomplished AI and Engineering Leader with 20+ years of experience building 0-to-1 products across enterprise and consumer platforms. Proven expertise in generative AI, NLP, computer vision, and large-scale search and recommendation systems. Skilled at leading cross-functional teams to deliver innovation at scale, drive measurable business outcomes, and build lasting competitive advantage.

Key Achievements

- **LLMs for Microsoft PowerPoint (2024–Present):** Led design and development of prompt-based AI systems and fine-tuned large language and reasoning models for grounded, on-brand slide creation and document understanding—doubling user engagement. Built applications leveraging image generation models for visual slide content. Founded and scaled the AI and Data teams for Microsoft PowerPoint; led AI development and hiring strategy across the Office group.
- **ML, DL, and LLMs at Adobe (2019–2023):** Developed semantic parsing for PDFs; implemented a model-distillation framework for fast and cheap object detection, built RAG systems for summarization and Q&A (Acrobat Assist). Enhanced Adobe Stock image search recall and diversity via CLIP-based models and a k-sparse autoencoder; architected an AI-powered audience discovery platform (Segment AI).
- **ML and DL at Salesforce (2016–2019):** Launched recommender systems, spam detection, Q&A features, chatbots, enterprise search, and news feed ranking for Community and Service Cloud—achieving a 20%+ engagement lift; accelerated AI adoption with BERT and Transformer-based solutions.
- **Commerce Search at Walmart (2014–2015):** Led 80+ engineers and scientists to build ML-based ranking/recall models, query understanding systems, Markov model-based spell correction, and ML-based type-ahead systems from scratch—boosting revenue by 23% and sales by 17%.
- **Recommender Systems for UpWork (2013–2014):** Built an end-to-end, near real-time contractor recommender system (hiring rates +4%); established a product analytics team and built an experimentation platform, contributing to M&A due diligence.
- **Commerce Search at eBay & Amazon (Earlier Career):** Transitioned eBay to the ML-based Cassini search platform (+6% revenue) by architecting Cassini's ranking module and an image-search system for fashion; at Amazon A9, developed global ranking infrastructure and implemented new relevance evaluation systems.

Areas of Expertise

- **AI, ML, and Information Retrieval:** Developing generative AI systems, large language models (LLMs), NLP, computer vision, recommendation systems, and scalable search architectures.
- **AI Strategy & Execution:** Defining and leading AI roadmaps, transforming cutting-edge research into scalable products, and driving measurable business impact.
- **AI Systems Architecture:** Designing high-performance, cost-efficient platforms for AI, search, and data with a focus on integration, evaluation, and operational excellence.
- **Leadership, Ethics & Innovation:** Building high-performing AI teams, advancing responsible AI practices, and aligning applied science with strategic product outcomes.

Professional Experience

Head of AI and Data, Microsoft PowerPoint

March 2024 – Present

- Led ML and data strategy for PowerPoint and the broader Office Group; developed fine-tuned multi-modal LLMs for slide content generation, design learning from reference slides, slide image generation, and Office XML file creation.

- Architected prompt-based Copilot systems (e.g., narrative builder) for generating presentations from user input and documents; improved engagement by 20%. Supported additional Copilot features including rewrite, translation, speaker notes, and summarization.
- Built and scaled the applied science and data science teams from 1 to 16; launched programs for synthetic data generation, human labeling, model evaluation, and product analytics.
- Mentored emerging AI leaders; designed internal training programs (e.g., OpenAI fine-tuning), led Office-wide AI hiring strategy, and contributed to Responsible AI and deployment safety committees.
- Collaborated with Office LT and Microsoft Research to shape long-term AI investments, foundational model strategy, and applied science priorities across productivity apps.

Founder, AI Startup

Sept 2023 – Feb 2024

- Founded and prototyped a GPT-powered healthcare app to improve patient education, with a nonprofit-focused launch planned for 2025.

Director of Machine Learning & Engineering, Adobe

July 2019 – May 2023

- Oversaw a 40–60 person cross-functional ML organization delivering AI innovations for Adobe Sign, Acrobat, Stock, Creative Cloud, and the Experience Platform; specialized in generative AI, computer vision, NLP, recommendation systems, and audio/video optimization.
- Drove major improvements in form-field detection (Adobe Sign), PDF viewing (Acrobat iOS liquid mode), and multilingual layouts (Adobe Express) via an enhanced document-structure model; managed a team that developed compact models for mobile devices, resulting in a 3× increase in form-detection efficiency, support for 15+ languages, and reduced iOS failure rates.
- Developed privacy-preserving embeddings for customer-facing ML systems (in collaboration with legal teams on GDPR/CCPA) and led data-stitching frameworks to create 360° customer profiles.
- Introduced Q&A, summarization, and highlights for Acrobat using retrieval-augmented generation; deployed a privacy-centric AI pipeline on Azure to accelerate document intelligence feature development.
- Led and drove the research on Legal and contract document understanding for Acrobat.
- Built an ML-based ranking framework for Adobe Stock and Creative Cloud’s recommendation systems; created a semantic text-to-image search using multi-modal CLIP embeddings and a k-sparse autoencoder to improve recall and search diversity.
- Launched an advanced audience discovery platform with segmentation, fast nearest-neighbor techniques, and scalable clustering; cut operational costs by 4× through pipeline simplification and parallelization-driven improvements; redesigned the UX based on marketer feedback, earning strong pilot customer praise.

Director of Machine Learning & Engineering, Salesforce

July 2016 – July 2019

- Directed a 40+ person ML organization across the US, EU, and Asia, delivering AI-driven features that enhanced user engagement in Community Cloud and improved enterprise onboarding in Service Cloud; oversaw model design, data pipelines, deployment strategies, and cross-functional partnerships.
- Launched recommendation systems, spam detection, Q&A features, chatbots, enterprise search, and ML-based feed ranking—achieving a 20% boost in engagement and broader AI adoption.
- Collaborated with ethics committees to ensure GDPR/CCPA compliance and led security reviews for community and service data flows.
- Developed BERT-powered chatbots and dialogue recommendation systems for retail, banking, and hospitality, significantly increasing accuracy and adoption.

Founder & Managing Consultant, SmartInfer LLC

2015 – 2019

- Advised Etsy on search analytics, machine-learned spell correction, and AI organization design across two locations.
- Boosted Neurotrack’s Alzheimer’s diagnostic accuracy by 20% through improved pupil-tracking algorithms.

Director of Search Science, Walmart E-commerce

June 2014 – Oct 2015

- Led a 16-month AI transformation with 80+ staff, creating an analytics team to address search inefficiencies in demand/supply; mapped key business problems to ML solutions including multi-layer ranking, query understanding, smart promotions, and specialized search for tires/pharmacy—achieving 23% revenue growth and 17% sales uplift.
- Streamlined recruitment and forged university partnerships, scaling R&D at the Bangalore center.

Director, Data Science and Engineering, Elance/UpWork

June 2013 – June 2014

- Built a contractor ranking and recommender system from scratch, increasing hiring rates by 4%.
- Created a controlled experimentation platform for data-driven improvements, supporting Elance’s transition to UpWork.

Early Career (2005 – 2013):

Roles at eBay, Amazon A9, Microsoft, and MyFamily/Ancestry

- Contributed to ML-based ranking (Cassini, +6% revenue), image-search pipelines, indexing and crawling in C++, and OCR error correction models.

Education

- **Ph.D. in Computer Science**, University of California, Davis (2018) – AI, Distributed Systems
- **Executive Education**, University of California, Berkeley (2018) – Negotiation and High Performance Leadership
- **M.S. in Computer Science**, Ohio State University (2005) – Distributed Data Mining
- **M.S. in Computer Science**, University of South Florida (2002) – Computer Vision and Graphics
- **M.Tech in Mechanical Engineering**, IIT Kanpur (1999) – Robot Vision & Planning
- **B.E. in Mechanical Engineering**, West Bengal (1996)

Selected Patents and Publications

• Patents:

- Service Agent Personal Recommender System (US 1020369)
- Image-based Popularity Prediction (US 20120303615)
- Query Classification for Improved Search Relevance (US 20120221557)

• Publications:

- Doctoral Thesis: *Machine-Learned Ranking Algorithms for E-commerce Search and Recommendation Applications*.
- IEEE Big Data (2015): *Controlled Experiments for Decision-making in E-commerce Search*
- SIGIR ECOM (2018): *Towards Optimization of E-Commerce Search and Discovery*.
- Master’s Thesis (2005): *Efficient Clustering Algorithms for Out of Core, Distributed and Streaming Data*

Selected Awards and Recognitions

- Conference Reviewer (SIGIR, KDD, EMNLP), Speaker/Panelist (AI, ML, E-commerce), and UC Davis Graduate Fellowship recipient.