

Creative and impact-driven engineer with a passion for intuitive interfaces, system design, and scaling reliable ML-powered applications. Proven success building user-centric features used by millions, driving multi-million-dollar revenue, and presenting at Adobe Summit.

Work Experience

Software Engineer III AEM Dynamic Media	Adobe Noida, India	July 2022–Present
<ul style="list-style-type: none">Developed and maintained high-performance backend services in Java for Adobe Experience Manager (AEM) Dynamic Media, supporting over 1000 global customers, including 106 Fortune 500 brands. Platform delivers 9 trillion assets annually, driving \$100M in revenue.Designed and implemented semantic search APIs over a unified Digital Asset Management (DAM) layer, enabling federated asset discovery across multiple remote repositories.Led architecture and end-to-end development of a canvas-based template editor, integrating <i>ReactJS frontend with a scalable Java backend</i>. Enabled real-time content personalization through dynamic URL modifiers, driving \$5M+ in client revenue within a year. Showcased at Adobe Summit 2024 – Vegas.Added support for DASH streaming protocol, built a modular video processing pipeline, and integrated multi-language captioning and auto-transcription/translation services — powering ingestion of over 2M videos/year, helping clients save over \$20M annually.Improved the smart-crop engine by parallelizing asset processing workflows, achieving up to 10x performance gains on high-volume assets.Honored with the Adobe Outstanding Young Engineer Award 2025 — selected as one of six recipients globally.		
Founding Engineer Frontend, UI/UX	Quriate Delhi, India	2021–2022
<ul style="list-style-type: none">As founding engineer, I designed and developed an auto-scaling application for Quriate, an online class management platform. I managed a high-performing team of 3 engineers.Spearheaded customer acquisition efforts, directly interacting with potential clients and gathering valuable feedback. Utilized strong technical skills in ReactJS and Python to build a scalable and user-friendly front-end application.Built a loyal customer base of 5000 users, surpassing competitors' reliability and overall user experience.Led UI/UX and product design for a visually appealing and user-friendly interface.		
Opensource Developer Machine Learning Engineer	Google Summer of Code Remote	Summer 2020
<ul style="list-style-type: none">Developed a state-of-the-art two-way Hindi-Punjabi translator using the Apertium architecture.Created monolingual dictionaries, bilingual dictionaries (Hindi-Punjabi) with over 12,000 stems in each monolingual dictionary, 20000 translations, and transfer rules for grammatical changes.		
Software Developer Intern	Indian School of Business Hyderabad, India	Summer 2019
<ul style="list-style-type: none">Built a patent-based company clustering system using unsupervised learning algorithms.Leveraged expertise in data visualization to enable insightful visualization of current company interests		

Education and Certifications

- B.Tech + MS, Computer Science – IIIT Hyderabad (CGPA - 8.38 B.Tech, 10.0 MS)

2017–2022

Technologies and Languages

- Languages: Java, C++, Typescript, Python, Bash
- Technologies: ReactJS, AWS, Git
- Other: Data structures and algorithms, Operating Systems, Computer Networks

Projects

- **Dynamic Video Personalization:**
 - Built a runtime video personalization tool that is **100x more cost-effective** than market solutions.
 - Utilized Lottiejs and Videojs to create a custom viewer and inject personalized content at runtime.
 - Showcased at Adobe Summit 2025 – Vegas.
- **Smart Layout:**
 - Built a smart layout engine to dynamically adapt layered visual designs to any aspect ratio, preserving visual hierarchy and aesthetics across screen sizes.
 - Engineered intelligent rules to adjust sizes, positions, and color balances of design elements using metadata from layered compositions.

Publications and Patents

- **Hindi Timebank: An ISO-TimeML Annotated Reference Corpus:** Through this [paper](#), we contribute the Hindi TimeBank(a 1,000-article dataset with over 25,000 events, 3,500 states, and 2,000-time expressions), an ISO-TimeML annotated corpus for classification of events, states, time expressions, and the links between them.
- **AesthetiQ - Enhancing Graphic Layout Design via Aesthetic-Aware Preference Alignment of Multi-modal Large Language Models (*pending US patent*):** Multi-modal Large Language Model (MLLM) for layout prediction that uses MLLM's aesthetic preferences for Direct Preference Optimization over graphic layouts. AesthetiQ improves performance over current state of the art by 18%.

Awards

- **Adobe Outstanding Young Engineer Award:** Recognized globally as **1 of 6** standout engineers for early-career impact and innovation (2025).
- **Top Idea and Best Presentation - Adobe DX Garage Week (2022, 2024):** Awarded the best idea in Adobe DX hackathon for optimizing a significant feature.
- **Dean's List IIIT-H (2019-20, 2020-21):** Awarded to the top 5% of students of the class for excellence in academic performance in a semester.
- **Outstanding Volunteer Award IIIT-H (2021):** Awarded to a single student acknowledging their significant contribution to one or more fields within or outside the institute during their entire period at IIIT-H.
- **Megathon (2018):** 1st out of over 400 teams in this annual hackathon organized by IIT-H and IIIT-H. Created a cloud service to sandbox data with Android, Windows, and Linux clients.

Interests

- I am an avid illustrator. I have worked with 2 startups to build their marketing campaign. I also take up occasional volunteer work for Adobe Communities and the United Nations. Portfolio: <https://www.behance.net/priyankmodi1/>