

ANUJ PRATAP SINGH YADAV

[in LinkedIn](#) | [9752373677](tel:9752373677) | yadav.anuj.singh@gmail.com

Summary

Software Engineer with a decade of experience building impactful systems across enterprise applications, cloud services, and formal verification tools. Expert in architecting scalable solutions that deliver exceptional user experiences at Microsoft and Adobe, with recent experience in verification tools at Synopsys. Proven track record of driving measurable business impact, including increasing user engagement, reducing load times, and optimizing performance for millions of users. Combines strong technical problem-solving with a focus on creating clear user value.

Skills

- **Languages:** C++ | C | Java | C# | Objective C/C++ | JavaScript | TypeScript | Bash | TCL | jQuery | Node | Python
- **Domain:** Distributed Systems | Microservices | Backend/Frontend Development | Formal Verification | EDA | Datapath Validation
- **Tools & Frameworks:** Azure | Git | Perforce | CI/CD | GitHub Copilot | Curser | OOPs | Parallelism

Experience

Staff Engineer

Synopsys

Noida, INDIA 05/2023 – Present

- **DPV: Formal Data Path Verification**

- Developing enhanced formal verification capabilities for datapath validation, supporting chip design for major clients including Nvidia (GPU architectures), Intel (CPU designs), Apple (custom silicon), and ByteDance (ML accelerators).
- Designed and implemented comprehensive code coverage analysis for C++ designs, enabling semiconductor clients to identify verification gaps and improve formal coverage for critical designs.
- Designed & developed token-based licensing system in DPV enabling shared token usage across formal apps, improving license utilization across apps.
- Designed and implemented persistent design state serialization, enabling save/restore capabilities that reduced verification setup time by 40% and improved workflow continuity across design iterations.

Software Engineer II

Microsoft

Noida, INDIA 05/2021 – 05/2023

- **OneDrive Catalog Sku Filtering**

- New Sku releases by Commerce are causing multiple high severity 2 incidents, impacting OneDrive upsell, with a 2-3- week production fix timeline.
- Developed and Implemented solution to filter unsupported skus and allow only supported skus for OneDrive sales via catalog filtering and whitelisting.
- Catalog filtering and whitelisting prevented OneDrive sales impact, saved time, and improved service reliability/stability.

- **Stream 2.0 Video insertion & playback in office docs**

- Enabled insertion and playback of Stream 2.0 videos from SharePoint/OneDrive in Office documents.
- Built and integrated Excel video playback module with seamless multi-service interaction. Enhanced video experience, boosting collaboration for M365 enterprise users.

- **PowerPoint Recording Studio Enhancements**

- Renovate Recording Studio of PowerPoint with advanced capabilities (Exporting Video, camera background etc.) to increase user appeal and proclivity towards creating explainer videos.
- Designed and implemented new camera modes and added the ability to blur the camera background in the user's live feed.
- Increased the recording sessions MAU from 1.5M to 4.2M.

- **Cameo in Recording Studio**

- Fixed camera position in recording studio obstructs slide content and limits impactful slide creation with integrated camera content.
- Designed and Implemented Cameo (Customizable Camera object) during recording and editing options for shape, size and layout to optimize video with slide design.
- Cameo insertion in recording MAU is 1.2M out of 4.2M recording sessions started.

- **Automation Explainer Videos in PowerPoint**

- Led the automation crew for v1 release of Explainer Videos using Recording Studio in PowerPoint Win32 App.
- Gathered knowledge of writing test cases and executing in PPT and shared with team to keep our feature away from regressions.
- Created Plans for test driven development for features and contributed to keeping features in healthy state.

- Enriched system metrics by integrating the features with telemetry; facilitated in-depth logging for Explainer Videos Recording and Export events.

- **Support Mathematical Expressions & Equations in AEM Docx Web Editor**
 - Added MathML library support for customers to create math expressions & equations and insert in the document as a SVG Image.
 - Enables and attracts customers working on Math Documents to use Web Editor.
- **Improving performance for very large files where customer reported Freezing/Slowness in Web Editor**
 - Designed and implemented the lazy loading for files in Web Editor, which resulted in 60% reduction in overall loading time.
- **ColorPop in Photoshop Element**
 - Developed the **ColorPop** feature in Photoshop Elements to highlight key objects by keeping them colored while converting the background to black and white. Utilized the Photoshop Engine to implement object masking for precise highlighting.
 - Designed an **Auto Creation** workflow to identify suitable images based on predefined configurations, process them in the background, and notify users upon successful creation.
- **Migrated Elements from RIBS to Hyperdrive**
 - Redesigned the CI/CD pipelines create new executables having Hyperdrive environment. Created independent bundles for parallelization.
 - Elements Product Installation time on system significantly reduced by 50% on average.

Education

B.Tech (Computer Science) GPA (8.27/10)	<u>Maulana Azad National Institute of Technology (NIT Bhopal)</u>	<i>Bhopal, MP, INDIA</i>	06/2011 - 05/2015
12th (CBSE) Percentage (78%)	<u>Kendriya Vidyalaya Shivpuri</u>	<i>Shivpuri, MP, INDIA</i>	04/2009 - 05/2010
10th (CBSE) Percentage (85.6%)	<u>Kendriya Vidyalaya JRC Bareilly</u>	<i>Bareilly, MP, INDIA</i>	04/2007 - 05/2008

Achievements and Awards

- **Spot Awards:** Received for Outstanding work in Elements.
- **Ranked 1st in Knight Coders in TechnoSearch (2012)**
- **Ranked 3rd in Code Pokers Held in TechnoSearch (2012)**
- **Maximum Rated 1974 on [Codechef](#) (Handle: newcoderr)**
- **Maximum Rated 1693 on [Codeforces](#) (Handle: newcoderr)**

Hobbies and Interest

- Competitive programming, Cricket, Football, Chess