

# ANUJ PRATAP SINGH YADAV

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## Skills

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- C++ | C | Java | C# | Objective C/C++ | JavaScript | TypeScript | Bash | TCL | jQuery | Node | ReactJs | Python | SQL | NoSQL | Git
- CI/CD | Unit Testing | OOP | Azure EventHub | Azure | Kafka | Parallelism
- VC-Formal | EDAG | Data Path Validation | Microservices | Distributed Systems | Backend | Frontend | Full-Stack | Scripting

## Experience

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### R&D, Staff Engineer

#### Synopsys

Noida, INDIA 05/2023 - Present

#### • DPV: Formal Data Path Verification

- Working in DPV, a formal verification tool that verifies the correct implementation of data path elements of a design, uses formal algorithms to thoroughly prove the transactional equivalence between two designs.
- Enhancing DPV with features Code coverage and over constraint analysis for C++ designs of customers like Nvidia, Intel, Apple etc. Also added support for partitioning and multi-processing for optimizing designs with huge number of basic blocks.
- Developed and implemented token-based licensing for DPV clients allowing customers to use same tokens for different formal apps.
- Worked on multiple enhancements improving the tool, such as saving and restoring designs data, supporting single designs setups etc.

### Software Engineer II

#### Microsoft

Noida, INDIA 05/2021 – 05/2023

#### • Catalog Filtering for Upgradable Plans in OneDrive

- 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 Office Integration

- Enable insertion of linked Stream 2.0 videos from SharePoint/OneDrive into Office documents for direct playback, promoting video cohesion for enterprise customers.
- Developed and integrated the video playback module for inserted videos into Excel documents, collaborating with partner teams to ensure smooth interaction with multiple services.
- Enhances video experience and enables M365 customers to use ODSP videos, facilitating efficient collaboration.

#### • Explainer Videos in PowerPoint

- 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.

### Member Of Technical Staff 2

#### Adobe

Noida, INDIA 08/2015 - 04/2021

#### • 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.

#### • Supporting user-based profiles to update AEM Docx Web Editor UI

- Designed and implemented the APIs to provide customers the functionality to upload user-based profile configs and honoring their preferences in Web Editor.
- Enabled customers to configure the Editor UI according to their organization needs and requirements.

#### • 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**
  - Edit a picture by illuminating the important Object by keeping it colored and making all other objects black and white.
  - Designed and implemented the feature using Photoshop Engine by masking out the object to be highlighted and created Auto Creation running in background to recognize the images suitable for applying ColorPop on basis of configuration and push notification to user after 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

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**B.Tech (Computer Science)**  
GPA (8.27/10)

**Maulana Azad National  
Institute of Technology (NIT  
Bhopal)**

*Bhopal, MP, INDIA*    **06/2011 - 05/2015**

**12th (CBSE)**  
Percentage (78%)

**Kendriya Vidyalaya Shivpuri**

*Shivpuri, MP, INDIA*    **04/2009 - 05/2010**

**10th (CBSE)**  
Percentage (85.6%)

**Kendriya Vidyalaya JRC  
Bareilly**

*Bareilly, MP, INDIA*    **04/2007 - 05/2008**

## Achievements and Awards

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- **Spot Award:** Received for Outstanding work in Elements Team for Migrating to hyperdrive.
- **Ranked 1<sup>st</sup> in Knight Coders in TechnoSearch (2012)**
- **Ranked 3<sup>rd</sup> in Code Pokers Held in TechnoSearch (2012)**
- **Maximum Rated 1974 on [Codechef](#) (Handle: newcoderr)**
- **Maximum Rated 1693 on [Codeforces](#) (Handle: newcoderr)**

## Hobbies and Interest

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- Competitive programming, Cricket, Football, Chess