Dhruv Mishra

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EXPERIENCE

Software Engineer   Jun. 2024 – Present
Microsoft   *Noida, India*

- Revamped Excel's Compose Shimmer loading architecture, adding Compose warmup sequences on UI thread, adding baseline profiles and optimizing XML and Compose interactions; reduced shimmer component load times by **99% (300ms → 3ms)**, while staying on Compose, improving perceived latency for **millions of users**.
- Identified and patched inefficiencies in VM Scale Sets and log replication strategies, resulting in verified annualized savings of **$240,000** for the **ShellService** Backend (Handling 7B+ hits/day).
- Managed the release lifecycle as the sole owner for <u>Fluent UI Android</u> across 10 releases for **10+ partner teams** (including Copilot, Office, Outlook, OneDrive and Teams).
- Secured the **Android Shared Service** by achieving **100% security compliance** as the Sole Security Owner.
- Reduced external file open latency by ∼**500ms** for **Office Mobile (WXP)** by designing custom baseline profiles targeting critical "Cold Start" scenarios, boosting App Apdex scores.

Software Engineering Intern   May 2023 – July 2023
Microsoft   *Noida, India*

- Architected a connection management service for **Microsoft Loop** that synchronized connection states across multiple 3rd-party integrations (Jira, Trello, GitHub), now serving as the generic backend for all **3P integrations**
- Integrated GitHub and Azure DevOps REST APIs into **Power Platform Connectors**, enabling automated workflows for thousands of enterprise developers.

Software Engineering Intern   Feb. 2024 – Jun. 2024
growIndigo   *Delhi, India*

- Reduced crop classification workflow time by **80%** while increasing accuracy to **93%+** by replacing Google Earth Engine scaling with a custom Python-based classification pipeline leveraging XGBoost and RandomForests.

TECHNICAL SKILLS

Languages: Kotlin, Java, C++, Python, TypeScript, SQL, JavaScript, KQL, C, Bash, Powershell
Technologies: Android (Jetpack Compose, XML, Gradle, Maven), Git, Docker, DevOps (Pipelines, VMSS), NPM, Yarn
Concepts: System Design, Distributed Systems, Data Structures & Algorithms, CI/CD, Databases, Machine Learning

EDUCATION

Indraprastha Institute of Information Technology (IIIT-Delhi)   Delhi, India
Bachelor of Technology in Computer Science and Applied Mathematics   *Dec. 2020 – Jun. 2024*

- CGPA: 8.96 / 10.0 (**Graduated with Academic Honors**)
- **Undergraduate Researcher** at <u>DCLL</u>: Achieved **300% throughput boost** in Counting Bloom Filters with minimal impact on false positive and negative rates using relaxation and concurrency under Prof. Bapi Chatterjee
- **Developed** a <u>Course Recommendation System</u> as an engineering project under Prof. Dhruv Kumar

ACHIEVEMENTS

Codechef: 5* Rated Coder (Peak Rating: **2003**) - Top **1%** globally.
Codeforces: <u>Expert (Peak: **1703**)</u> | <u>Alt (Max: **Expert**)</u> - Top ∼**10%** globally.
Competitions: <u>Google Farewell Round (2023) Round A Global Rank #291</u> | <u>Global Rank #353</u> in Google Kickstart (2022) Round H | Global Rank **#167** in Reply Code Challenge
Awards: Winner of Microsoft Global FHL, 2025 Award (Fundamental Category) for "WXP ActionEase".

PROJECTS

Hybrid Recommender System | *Python, Scikit-learn, Pandas, SVD, Tensorflow*

- Developed a context-aware hybrid movie recommendation system integrating **Collaborative, Content-based, and Demographic filtering** to solve the "Cold Start" problem and personalize content for diverse user groups.

Instant Vital Checkup (IVC) | *Python, OpenCV, Machine Learning*

- Developed a contactless vital monitoring system using **OpenCV** and **Computer Vision** to estimate physiological metrics (Heart Rate, BMI, Height) from real-time video feeds, automating patient triage workflows.