Ishanh Misra

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Skill Set

- **Languages:** C, C++, C#, PowerShell, Python, JavaScript, TypeScript, HTML, CSS, Bash
- **Tools & Frameworks:** DotNET, Git, Bash, Angular, React, React Native
- **DB / Storage:** SQL, Azure Cosmos DB, MongoDB, Azure Blob / File / Table Storage, Azure Data Explorer
- **Azure:** App Service, Service Fabric, Service Bus, Entra Id, DevOps, VMSS, Translator
- **Design & Editing:** Figma, Wondershare Filmora, ClipChamp, PowerPoint
- **Miscellaneous:** Arduinos, Raspberry Pi, MatLAB, AutoCAD, LaTeX

Work Experience

Software Developer, Store, Microsoft Corporation   *July 2022 - Present*
- Software Developer: July 2022 - August 2024
- Software Developer II: September 2024 - Present

Revamp of Store Developer Account Onboarding
- Used **React (TypeScript) to develop a new revamped experience for onboarding new developers** to Store
- Added **Redux** for global state management, **Axios for API calls** with Backend.
- **Cached frequently called APIs** to MS Graph, MS Identity, and other partner services to **prevent rate throttling issues**
- **CDNized assets like images, JS and CSS** for improved performance and better experience for end-users
- Implemented dark mode, along with **pro-active auto-switching of dark mode** when system dark mode changes
- Took care of **accessibility and mobile device requirements** for ensuring the best experience
- Used **"delegated" User Tokens in backend for proper authentication** with other services
- Helped **implement payments platform** (Credit and Debit card integration) for final payment and registration
- Utilized existing project (Curie) to **support telemetry requirements, and setup data workflows** for further analysis
- Integrated with internal **monitoring systems to ensure creating a ticket** if user sees an error on webpage

Auto-Translation of Store Product Description Pages
- Delivered **E2E feature for auto-translating Product listings** provided by Developer into 23 languages
- Conducted research between **Azure Translator (Cognitive Services), Azure Open AI and Bing Translator** before finalization
- Took care of preventing translation of Publisher Name, Product Name, etc.
- Used **Azure ARM Templates** to automatically create resources: new DB containers, translator resource, and cache in production
- Migrated resources to **secure access mechanism (Managed Service Identity)**, to disable local authorization (for higher security)
- Added **rate-limiter on translation** backend API to **prevent cost of translation from blowing up**
- Utilized multi-threading to chunk the translation content, since Translators have a limit on request content size
- Ensured translation is **available within SLA of 5 mins on Store**, and ensuring violation leads to creation of tickets
- **Analyzed feature impact (Product Conversion)** using ingested telemetry, while regularly sending reports to leadership

UI Telemetry Platform
- Developed **Curie: a platform for collecting telemetry for UI pages** of Microsoft Partner Center
- Enabled **sending telemetry to Azure Data Explorer clusters, Monitoring agents and Azure Data Lake** within SLA of 5 mins.
- Ensured the **solution is extremely low cost** when compared to traditional solutions like Azure App Insights
- Helped **measure the impact of old as well as new features**, including Social Sharing, Performance improvements, etc.
- Collected information: Page Views, Engagement Time, Button Clicks, Session Ids, User Context (Email, PUID, Published Id), Product Context (Product Id, Submission Id), Errors, Service Calls, etc.
- Created **multiple Dashboards (10+ pages, 25+ charts, 30+ metrics),** including **proposals for Sankey diagrams**
- Conducted a **Privacy review for collecting data and ensured accessibility** of data across multiple teams

Store Developer Analytics Improvement
- Introduced new **Peer Comparison chart** to help Developers **compare their analytics with average of their peers**
- Researched **complete E2E data engineering flow** of the Analytics data
- Created new **scripts using C#, SQL and Python** to prepare data in **Azure Data Lake**
- Took care of **Privacy concerns on all data fields for compliance** while preparing data
- Create **automated backfilling workflows** using **Azure Data Factory for Backend** consumption
- Created **APIs using OData Query and SQL** for Frontend Consumption for Peer Comparison chart
- **Expanded data availability to 365 days** for all charts, including a **custom date filter** (up to 1 year) filter
- Created **High & Low Level Design Documents** to gather telemetry for **usage of Backend APIs and Frontend Charts**

Other Work Items
- Helped revamp **Microsoft Partner Center MSIX Apps Overview Dashboard**, ensuring progressive rollouts using Feature Flags
- Took care of fixing **Accessibility features, including Visibility, Contrast, Keyboard Access, Narrator**, etc.
- **Extracted AUM ID for Apps** installed via EXE / MSI installers, for Store to **auto-detect if product is already installed**
- Ensured **GDPR Compliance of data** in assets like Azure Data Explorer, SQL tables, etc.
- Worked on **migrating frameworks and CI/CD pipelines** as part of company-wide **Secure Future Initiative**

- **Hosted applications in Microsoft Store**, while encouraging others too, in order to **test features on live products** efficiently
- Created a **prototype mobile application using React Native** (and Flutter) for improving Store Publishing experience
- Modified Build Pipeline, Release Environments and Test Cases to **improve engineering efficiency** of organization
- Participated actively in On-Call Duties, ensuring Store Services reliability remains at-par ensuring smooth customer experience
- Helped Leadership with **creating demonstration videos and drafting important emails** to help improve org's visibility
- Conducted research into publishing experience at Google Play Store and Apple App Store by publishing apps
- Participated in **Career Developer Plan,** creating awareness among peers about improving career in a planned way

Developers Analytics Frontend (Internship, Store, Microsoft Corporation) *January 2022 - July 2022*
- Improved **Microsoft Partner Center Store Win32 Analytics Dashboard**, developed using **Angular**
- Introduced **Usage/Health pages** & charts like **App Launches, Average Engagement, Installation Failures**
- Improved existing charts: **Installs, Store Page Views, Active Devices, Installer Return Codes, App Funnel**
- Implemented **long-awaited download button and filters** (device type/architecture, OS, app version, etc.)
- Took care of **screen scalability, dark mode, keyboard accessibility, Right-To-Left languages**
- Briefly worked on displaying reports of certification (viruses, age ratings, architecture/OS compatibility, etc.)

Binary Validation Service (Internship, Store, Microsoft Corporation) *May - July 2021*
- Used **Azure Blob & Table Storage** to **cache binaries** provided by Store app developers hosted on URL
- Calculate and stored **SHA256 hashes,** later used to scheduled checking updates to hosted binaries
- Triggered **re-certification upon hash mismatch** while ensuring Store availability using cached version

Medical Admin Platform (Internship at Zivov Health, Startup) *June - July 2020*
- Health-tech platform for chronic **disease management** and **generating / sharing reports among doctors**
- Admin Frontend implemented in **React**, Backend in **NodeJS** (deployment: **AWS Elastic Beanstalk**)
- Developed Mobile App in **React Native**; Applied **topological sort** to accomplish API scheduling
- Implemented **Push Notifications (Google Firebase)** and SMS services for **OTP verification**

Tech At Farm (IIT Kanpur, Sponsors: Nutanix, UPSIDC) *May - June 2019*
- Developed an **automated irrigation system** - an IoT2 solution for farmers during **Summer of Code 2019**
- Built a desktop app with features like **language toolbar, crop search, farmer search, login profile,** etc.
- Deployed the project using **Amazon Web Services (AWS) EC2**, & **Django 2.2.3** for server management
- Self-constructed devices and calibrated using **Arduinos (C++ programming), ESP8266** modules & relays

Education
Bachelor of Technology: Computer Science and Engineering (9.86/10.0), July 2018–June 2022
Institute: Indian Institute of Technology, Kanpur

Achievements
- **Engineering Excellence Award** by **Microsoft Store, Microsoft Corporation**
- **Secure First Initiative** award by **Microsoft Store, Microsoft Corporation**
- Recipient of the prestigious **Aditya Birla Scholarship (2018 - 2022)**
- Received **Academic Excellence Award** by **IIT Kanpur**
- Offered Semester Exchange (Spring 2021) by EPFL, Switzerland
- Secured AIR 324 (JEE Advanced 2018) and AIR 598 (JEE Mains 2018)
- Secured AIR 216 in KVPY 2016, offered Bachelor of Science by IISC, Bangalore, India
- Recipient of NTSE 2016 Award (conducted by NCERT, India)