

Tanya Lai

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EXPERIENCE

Microsoft (Intune)

Redmond, WA

Software Engineer 2

Mar. 2024 – present

Ring 0 Agents, Windows Extensibility, and Certificate Authorities team

- Co-drove core Azure PKI-R certificate infrastructure integration to **improve rotation resilience and reduce deployment reliance** across core Intune-issued device certificate scenarios, enabling SKI-based lookup, in-memory chain construction, rollout telemetry, and migration-safe deployment flows across authentication policy, certificate authority, certificate runtime, and deployment systems spanning **11 gateway scenarios and ~1K CAs across environments**
- Established AI-assisted review and rollout tooling** for Intune's Windows device-management agent infrastructure, supporting 8 partner teams with shared Copilot skills, reviewer personas, GitOps PR review flows, dashboards, and blocker/signoff tracking, improving review consistency, rollout safety, and readiness visibility **for high-risk changes impacting 150M+ devices**
- Improved reliability, consistency, and security posture for User Device Association (UDA), a core Intune component for primary user-device association scenarios, closing gaps in error handling, retry, rollout protection, and Entra soft-delete restore handling. Monitored rollout health and reviewed Entra contracts to uncover edge cases and consistency limitations while migrating Graph calls away from high-privilege app dependencies

Device Inventory team

- Owned full-stack hardware inventory experiences across React UX, Microsoft Graph APIs, cross-service data synchronization, and localization pipelines, collecting data from **10M+ cross-platform devices with 99.9% availability**. Provided technical mentorship across teams and enabled admins to explore device resources, gain fleet insights, and improve organizational device management at scale
- Championed device inventory feature accessibility by triaging and resolving bugs to surpass Accessibility Conformance standards, **achieving a 100% pass rate on core scenario tests**. Led and organized cross-team E2E bug bashes involving 25+ engineers and PMs, designing core test cases to ensure usability, reliability, and catch critical issues pre-release
- Architected a robust localization pipeline for device inventory **across 18 languages**, integrating Redis caching, CosmosDB change feed, and message bus, schema validation, and data parsers, enabling high-quality translations that **empower 15K+ global organizations to confidently manage device data**

Software Engineer

Aug. 2022 – Mar. 2024

Data, Machine Learning, and AI team

- Collaborated cross-functionally to develop Intune's first ML-based recommendation system for Windows security baselines, **driving IT admins to configure 98% of settings in alignment with recommendations**. Defined key adoption metrics and supported related Microsoft Security initiatives
- Optimized background ingestion task of the ML pipeline that processed newly generated setting insights, **reducing CosmosDB server connections from ~700 instances to ~2 instances and cut runtime by 50%**
- Analyzed Intune device policy settings for Microsoft Security Copilot, mapping service endpoints/data schemas and developing backend retrieval functions to streamline policy data access. Co-mentored an intern who earned a return offer

Software Engineer Intern

May 2021 – Aug. 2021

- Designed and developed a full stack pipeline in Microsoft Endpoint Analytics to collect, aggregate, process, and display large-scale event data to provide insights to optimize an organization's CPU and RAM resources

Creative Coding Lab at the University of Michigan School of Music, Theatre & Dance

Ann Arbor, MI

Research Assistant

Nov. 2019 – Aug. 2022

- Owned browser client for Inviso (inviso.cc): an AR, VR, and browser suite for designing immersive, 3D, spatialized sonic environments, adding multiplayer mode, undo-redo, low-frequency oscillations, and map projections
- Won the Best Installation Prize at the summer 2020 New Interfaces for Musical Expression conference

SKILLS

Languages: C#, TypeScript/JavaScript, Python, KQL, C++, HTML/CSS

Libraries & Frameworks: React, Redux, Azure Cosmos DB

EDUCATION

University of Michigan

Ann Arbor, MI

B.S.E in Computer Science Engineering, Minor in Music – Summa Cum Laude

May 2022