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Identity: Connecting People and Technology

- *Identity and access management engineer working exclusively in higher education, with deep range across the full identity stack — directory services, federation, cloud identity, provisioning, lifecycle, and monitoring — on-premises, in Azure, and hybrid.*
- *Systems architect and polymath applications developer: designs and delivers authentication, authorization, and data-provisioning services for any application or platform, on-premises or in the cloud, and integrates them end to end.*
- *Builds and ships full-stack, AI-augmented identity tools end to end — React/Vite and FastAPI over Model Context Protocol servers that give models governed, authenticated access to directory and warehouse data — and integrates Claude, GitHub Copilot, and OpenAI across driver development, policy authorship, scripting, and incident analysis.*
- *Forward-thinking practitioner exploring graph databases as a native substrate for identity data, where affiliations, entitlements, and lifecycle state are modeled as the relationships they actually are.*
- *Equally comfortable gathering requirements, provisioning project infrastructure, installing and configuring applications, writing code, and presenting to stakeholders from individual contributors through the C-Suite.*

IDENTITY SKILLS

Active Directory (multi-domain, Certificate Services, DNS) • AD CS PKI (two-tier hierarchy, CRL renewal, LDAPS) • Ansible/Ansible for Windows • Artificial Intelligence integration (Claude, GitHub Copilot, OpenAI; Model Context Protocol servers) • Azure architecture: Control Plane, Data Plane; Management Groups, Subscriptions, Resource Groups; Static Web Apps, Functions, ExpressRoute, Logic Apps • Azure resource provisioning • bash • Conditional Access design • CyberArk Privileged Access Manager and Application Identity Manager • Databases: Chroma, MySQL, Neo4j, Oracle RDBMS, SQL Server • Data formats: JSON, XML, TOML, YAML • Duo (MFA, External Authentication Method) • Entra ID and Entra ID Connect • FastAPI • git and GitHub Actions • Google Apps for Education • Graph databases (Neo4j) for identity relationship modeling • Internet2: Grouper, Shibboleth • Large Language Models • NetIQ/OpenText eDirectory and Identity Manager • Natural Language Processing • OpenLDAP • Passwordstate • Perl • PowerShell • Python • React/Vite • REST APIs • SAML • Systems architecture and integration • XSLT

LANGUAGES

Arabic: CEFR A1 • German: CEFR A2 • Russian: CEFR A1 • Spanish: CEFR C1

EXPERIENCE

University of North Texas System: Denton, Texas

February 2024 – Present

Roles

- Identity and Access Management: IAM Engineer (2024 – Present)

Production Support

- Provided subject matter expertise for Active Directory (four domains), Entra ID, OpenText eDirectory, OpenText Identity Manager, AD CS PKI, and Duo across a multi-institution higher education environment serving 72,000+ users.
- Performed Active Directory forensics via repadmin metadata correlation and Security log analysis; assessed site-level domain controller retention and topology.
- Built hybrid monitoring architecture integrating systemd schedulers with a Model Context Protocol server, SQLite state, and Teams Adaptive Card alerting.
- Modernized the Python IAM scripting ecosystem behind a shared library (iam-modules) and a governing CONTRACT.md standardizing configuration, logging, exception handling, and CLI conventions across all consuming repositories.

AI Integration in Identity Management

- Pioneered AI-assisted IAM workflows using Claude, GitHub Copilot, and OpenAI to accelerate IDM driver development, XML policy authorship, PowerShell scripting, and incident analysis.
- Built Model Context Protocol server integrations enabling conversational interaction with identity infrastructure, personal knowledge management, and operational tooling.

- Engaged with the emerging identity-and-AI seam: how AI agents authenticate, are authorized, and are governed within identity infrastructure, including delegation patterns and scoped authorization for agentic workflows.
- Established AI-augmented documentation practices for IDM driver behavior, contract governance, and architectural decision records.

Project Sampler

ADFS-to-Entra Migration (2025 - 2026)

- Led de-federation of core UNT System domains and enabled Password Hash Sync for 72,000+ users.
- Deployed Duo as Entra ID External Authentication Method and executed PowerShell bulk removal of orphaned legacy authentication method registrations across the full user population.
- Consolidated Conditional Access policies from 23 to 6 and migrated user risk remediation ahead of the October 2026 classic policy deprecation deadline.

ALMA v2 Lifecycle Automation Architecture

- Designed and built a resilient lifecycle automation system featuring per-call retry, circuit breaker patterns, checkpoint-with-resume capability, and a three-phase Act → Wait → Verify operation model.
- Recovered from a directory outage that produced 92,720 false-failure verdicts by re-architecting the verification layer; replaced loginTime-based inactivity filtering with a no-roles/no-affiliations approach that surfaced ~240,000 previously suppressed candidates.
- Authored CONTRACT.md governance framework standardizing configuration loading, logging, connection handling, exception patterns, and CLI conventions across all consuming IAM repositories.

Systems Architecture and Integration

- Designed and built iam-apis with FastAPI, integrating PeopleSoft Oracle databases, OpenText eDirectory, and Active Directory Global Catalog behind unified authentication and Sectigo TLS.
- Developed UNT Directory App v3 on Azure Static Web Apps with a React/Vite frontend and Python Azure Functions backend, integrating Entra ID authentication with on-premises LDAP via VNet and ExpressRoute.
- Authored architectural review documents comparing Entra API-driven, Okta, and Pathlock approaches to cloud-first identity provisioning.

OpenText IDM Driver Development

- Developed and maintained HSCAD, UNTAD, and UNTADSTU drivers bridging eDirectory and Active Directory across four AD domains.
- Authored Publisher Command Transform policies, performed GCV cleanup (27 unused GCVs removed from HSCAD), and restructured TrafficCop policy chains.
- Deployed AD CS PKI in development: two-tier hierarchy across five servers in two data centers, validated end-to-end with IDM password sync.

IAM Toolbox Suite

- Full-stack development of a React/Vite multi-app suite including the IDM Simulator (DOM XPath policy resolution, jadutil function implementations, XDS Validator), IDM Log Reader, DriverSync, Dyptich, GitHub Bridge, RDP Manager, and Password Generator.
- Built Jenkins/PowerShell email provisioning pipeline with attribute-based routing and Entra Connect Sync gating.

University of Michigan: Ann Arbor, Michigan

March 2012 – October 2023

Roles

- IAM Operations Team: Application Developer Lead (2022 – 2023)
- IAM Line of Business Team: Application Developer Lead (2013 – 2022)
- IAM Operations Team: Client Server Programmer Senior (2012 – 2013)

Production Support

- Provided subject matter expertise for Active Directory, Azure/Entra AD, CyberArk, NetIQ eDirectory, NetIQ IDM, and Passwordstate, supporting an environment of 100,000+ users.
- Installed and configured infrastructure via Ansible for BIG-IP, Linux, and Windows.
- Performed monitoring and support of IAM infrastructure and applications via log review, custom scripting, Splunk alerts, etc.
- Produced ad hoc reports using Splunk, PowerShell, Python, etc.
- Processed single sign-on requests using the Internet2 SAML implementation, Shibboleth.

Project Sampler

Lead Active Directory Domain Administrator (2022 – 2023)

- Served as lead Active Directory domain administrator of a 1-million-object domain with a highly distributed administration model.
- Performed domain controller promotions and Certificate Services upgrades using Ansible.
- Deployed Active Directory domain controllers to the Azure cloud service and Dearborn campuses.
- Upgraded Certificate Services using an offline root certificate authority and online issuing CA structure.

Passwordstate Implementation (2021 - 2022)

- Served as implementation project manager and technical lead.
- Installed, configured, tuned, and documented the application.

Team Dynamix NetIQ IDM Driver Provisioning (2020)

- Developed Team Dynamix NetIQ IDM user synchronization driver using the Scripting driver.
- Wrote custom Python scripts to synchronize users and groups from eDirectory to Team Dynamix.

Azure Implementations (2017 - 2019, 2022)

- Performed swing upgrade of Azure AD Connect v2.
- Led identity provisioning efforts for two back-to-back Azure and Azure AD implementations.
- Customized user and group synchronization rules to match business process requirements.
- Created detailed cross-team go-live runbooks for a complex migration from an old tenant to a new tenant.

University of Louisville: Louisville, Kentucky

1994 - 2012

Roles

- Enterprise Development Team: Technical Lead
- Middleware Team: Enterprise Database Administrator
- Directory Services Team: Team Leader
- LAN Team: Team Leader
- Student Computer Labs: Team Leader

Project Highlights

Built the institution's identity management practice from the ground up:

- Led the first comprehensive identity management implementation: installed and configured Novell DirXML (later NetIQ Identity Manager) and authored multiple connectors in XSLT.
- Led the subsequent technical migration to Oracle Identity Manager, including OIM database and application infrastructure, and developed Active Directory, Exchange, and Outlook Live connectors.

EDUCATION

University of Kentucky, Lexington, Kentucky

Master of Science in Library Science

University of Louisville, Louisville, Kentucky

Bachelor of Music in Music History, minor in Mathematics