

Neel Shah

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PROFILE

Technology leader with 10+ years across public healthcare, financial services and enterprise cloud environments. Leads cross-functional teams, large-scale data platforms, service reliability, automation and stakeholder delivery in regulated settings.

CORE STRENGTHS

Technology leadership & governance: IT strategy execution, delivery leadership, risk-aware decisions, platform modernization, team mentoring and executive-ready communication.

Regulated domains: Healthcare data, financial services, public-interest stakeholders, PII/PIPEDA-aware systems, privacy-conscious architecture and audit-ready delivery.

Service delivery & operations: Production support, incident resolution, release coordination, agile delivery, service reliability and operational reporting.

Cloud, software & lifecycle management: Azure, AWS, Databricks, Docker, CI/CD, environment standardization, platform reliability and cost optimization.

Data, AI & reporting: Power BI, KPI dashboards, data pipelines, analytics automation, AI-assisted development, NLP/ML and data-product modernization.

Stakeholder & partner coordination: Requirements gathering, roadmap planning, cross-functional delivery, client consultation and business-technology alignment.

PROFESSIONAL EXPERIENCE

Canadian Institute for Health Information (CIHI) - Tech Lead/Program Consultant

Ottawa, ON | July 2023 - Present

- Lead engineering delivery for national health data platforms serving federal, provincial and NPO healthcare stakeholders.
- Coordinate technical planning, team execution, code review, release support and production-focused delivery across complex data products.
- Build and modernize healthcare data pipelines processing 1B+ data points across registry, diagnosis and pharmaceutical datasets.
- Led CMG Grouper modernization from SAS to Python/PySpark, processing 24M records with 200+ parameters in under 60 minutes.
- Own architecture, backlog planning, testing support, deployment readiness and post-release maintenance for multiple concurrent initiatives.
- Mentor engineers through SDLC delivery, coding standards, troubleshooting and production-quality data engineering practices.
- Translate stakeholder needs into secure, maintainable solutions while supporting privacy-aware handling of sensitive health data.

EXL Service - Goldman Sachs - Senior Consultant

Ottawa, ON | May 2022 - July 2023

- Delivered credit-risk and fraud-policy technology platforms for Apple Card, Walmart Card and GM Card portfolios.
- Built a Python, PySpark and FastAPI policy engine processing 1M+ financial transactions per hour with PII compliance and audit trails.
- Designed REST APIs supporting 1,000+ application requests per minute with sub-second latency.
- Resolved P0 production incidents, reducing risk exposure and contributing to \$10M+ in client savings.
- Built Python and PyUnit automation that reduced end-to-end testing time by 60% and improved release confidence.
- Led technical requirements gathering, technology evaluation, automation improvements and hiring input for the engagement.

Canopy Growth Corporation - Web System Architect

Ottawa, ON | July 2021 - April 2022

- Led platform modernization and delivery across 42 company websites, improving team execution through an agile transformation.
- Designed and deployed a Python, FastAPI, Docker and AWS microservice capable of handling 100,000 requests per hour.
- Developed AEM virtualization for development and production environments, delivering \$5M USD in annual cost savings.
- Built WCAG accessibility analysis, KPI-tracking data models and incident improvements that supported 99%+ availability.
- Designed data models and APIs for KPI tracking using Python, REST APIs, SQL and MongoDB across the digital estate.
- Supported production troubleshooting, release coordination and infrastructure improvements for business-critical web systems.

Manulife - Senior Python Developer

Waterloo, ON | August 2020 - July 2021

- Built, maintained and scaled Azure cloud infrastructure across 1,800+ Windows and Linux servers with a 99.99% uptime SLA.
- Developed Python automation for server monitoring, patching, maintenance, operational readiness and CI/CD testing.
- Built real-time Power BI dashboards for Azure infrastructure monitoring, giving operations teams live visibility across 1,800+ servers.
- Automated Azure environment testing with Python, Docker and Git workflows, reducing debugging time by 45 minutes per cycle.
- Maintained Python scripts for distributed computational environments, improving operational reliability and reducing manual support effort.

SITA - Python Developer

Montreal, QC | September 2019 - June 2020

- Designed real-time airport analytics integrating LiDAR and camera hardware with Python and reactive programming.
- Led Python 2 to Python 3 modernization and helped transform a monolithic product into Azure-based microservices.
- Built a global Power BI visualization platform for Azure product-line analytics and reduced backend testing time through CI automation.
- Improved backend test automation and deployment readiness for real-time airport technology products.

Lakehead University - Research Assistant & Python Developer

Thunder Bay, ON | November 2017 - May 2019

- Published peer-reviewed research on NLP, public health analytics and distributed systems, with 89+ citations.
- Designed a 20-node Elasticsearch cluster and ETL infrastructure supporting Health Canada and internal research stakeholders.
- Developed a Random Forest NLP model achieving 93.4% accuracy for population-level public-health classification.
- Built analytical pipelines and dashboards for large-scale social media and public-health data research.

Datalog.ai - Python Developer

Remote | January 2017 - August 2017

- Built asynchronous chatbot analytics APIs capable of handling thousands of requests per second.
- Created real-time dashboards and automation tooling for semantic analysis, topic extraction and call-centre workflows.
- Developed Python and Bash tooling for REST API integration, data conversion and chatbot analytics operations.

Panchamrut Dairy - Python Developer & Data Analyst

Godhra, India | July 2014 - December 2016

- Built real-time data analysis systems for product cost, transportation logistics, inventory and operational reporting using SAP and Python.
- Designed ETL logic and report-generation pipelines for sales, cost and inventory data.
- Developed time-series reporting and forecasting support for product sales, cost analysis and operational planning.

TECHNICAL SKILLS

Leadership & delivery: Technology governance, agile/Scrum, roadmap planning, stakeholder communication, production support, incident resolution, SDLC, release coordination.

Regulated domains: Healthcare data, financial services, credit risk, PII/PIPEDA, privacy-aware systems, audit trails, government and NPO stakeholders.

Cloud & platforms: Azure, AWS, Databricks, Docker, CI/CD, GitHub Actions, REST APIs, microservices, cloud operations, environment standardization.

Data & analytics: Python, SQL, PySpark, Apache Spark, ETL, data lakes, Elasticsearch, Power BI, Kibana, Pandas, NumPy, scikit-learn.

AI & automation: NLP, machine learning, prompt engineering, AI-assisted development, local LLMs, automation scripts, model/pipeline modernization.

Enterprise tools: SAP exposure, SharePoint-style collaboration, Git, JIRA-style agile workflows, observability dashboards, technical documentation.

EDUCATION, RESEARCH & OPEN SOURCE

M.Sc. Computer Science - Lakehead University, Canada | GPA: 3.9/4.0 | NSERC-funded research.

M.Sc. Information Technology - Gujarat Technology University, India | CGPA: 8.73/10.

B.Eng. Computer Science - Gujarat Technology University, India | 1st Rank - Excellence Certificate.

Research: 3 peer-reviewed publications in NLP, public health analytics and distributed systems; 89+ citations.

Open source: Creator of Python tools with 3M+ downloads and 365+ dependents.