SUKHRAJ SINGH

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EDUCATION

Algoma University Toronto, CA

Bachelor of Computer Science (GPA: 3.9 / 4.0) *Expected - Dec 2028*

- **Relevant Coursework:** Java, Object-Oriented Programming , Cloud computing, IT security, Database, Discrete Math I & II, Data Structures & Algorithms, SDLC, OOP, AI, Computer Networks, Operating Systems

SKILLS

Languages & Scripting: Python, Java, SQL, Bash, PowerShell, Shell Scripting

Cloud & Infrastructure: AWS (ECS, ECR, IAM, CloudWatch), Terraform, Infrastructure as Code (IaC), Docker, Kubernetes, Helm

Automation & CI/CD: Ansible, GitHub Actions, CI/CD, Automated Testing, Configuration Management, Workflow Automation

Systems & Networking: Linux, Windows, TCP/IP, DNS, DHCP, VLANs, Routing & Switching, SR OS, Network Troubleshooting

Reliability & Security: Prometheus, Monitoring & Logging, Health Checks, Root Cause Analysis, Wazuh, Microsoft Defender, Container Security Scanning

AI & Evaluation: AI/ML Fundamentals, LLM Evaluation, Test Case Design, Python Test Harnesses, Output Validation

Collaboration & Documentation: Git/GitHub, Branching, Pull Requests, Code Reviews, Technical Documentation, Cross-functional Collaboration, Analytical Problem Solving

Experience

Nokia Ottawa, ON

Automation Engineer – Co-op *Dec 2026 – Present*

- Developed **Python and Bash automation** on **Linux**, building modular **agentic workflows and tool-calling interfaces** to execute approved network diagnostics, collect logs, and generate structured reports for troubleshooting.
- Built **automated test suites and evaluation datasets** to benchmark task accuracy, tool-use reliability, and output consistency; tested invalid inputs, timeouts, and failure scenarios to identify regressions.
- Tested **NTA scripts** with autonomous agents in **Docker-based Linux environments** and integrated regression checks into **CI/CD pipelines**, using **Git, branching, and pull requests** to support reproducible validation.
- Collaborated with **IP, Optical, and Fixed Networks engineers** on script troubleshooting and **root cause analysis**; maintained **HLDs, LLDs, operational runbooks, and troubleshooting guides** to support reliable execution, maintenance, and technical handoffs.

Toys "R" Us Brampton, ON

DevOps Intern *Jan 2025 – May 2025*

- Automated recurring **reporting and operational workflows** using **Python and Shell scripting**, helping IT and analytics teams reduce repetitive manual processing and produce consistent, repeatable outputs.
- Investigated **application and data issues** through systematic **troubleshooting**, documenting observed behavior and coordinating with technical stakeholders to support issue resolution and dependable day-to-day operations.
- Supported **AI-assisted knowledge and issue-summary workflows**, organizing operational information into actionable technical summaries to help teams review problems, identify next steps, and coordinate activities.
- Maintained **operational documentation** for automation scripts, troubleshooting procedures, and issue resolutions, providing reusable instructions for workflow maintenance, knowledge sharing, and consistent technical support.

PROJECTS

DeployGuard Cloud Platform 🔗 | *AWS, Terraform, Kubernetes, Docker, GitHub Actions* 2026

- Developed a **Node.js canary-release simulator** with **four rollout stages (10%, 25%, 50%, 100%)**, implementing automated **SLO evaluation and rollback** when simulated p95 latency or error rates exceeded defined thresholds.
- Configured **GitHub Actions CI pipelines** to execute unit tests, configuration checks, **Trivy vulnerability scans**, and Docker image builds on pushes and pull requests, automating verification before integration.
- Authored **Terraform infrastructure blueprints** for AWS EKS, ECR, IAM, and CloudWatch, alongside **Helm deployment templates** incorporating Kubernetes health probes, resource limits, non-root execution, and network policies.
- Exposed **Prometheus-compatible metrics** for latency, error rates, and simulated canary traffic; implemented **fault injection and release-event logging** to test failure scenarios and inspect promotion and rollback decisions.