

Aryan Singh

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EDUCATION

McMaster University

Hamilton, ON, Canada

Master of Engineering in Systems and Technology – Automation Smart Systems, GPA: 3.9/4.0

Jan 2025 – Dec 2026

Guru Gobind Singh Indraprastha University

Delhi, India

Bachelor of Technology in Electronics & Computer Engineering, GPA: 3.7/4.0

Jun 2020 – Jun 2024

EXPERIENCE

TD Bank

Toronto, ON

Software Engineer Intern (Co-op)

Sep 2025 – Present

- Reduced secrets misconfiguration by 30% by architecting Vault-backed schemas for CRM pipelines, standardizing secure access across services
- Accelerated deployment cycles by 20% by refactoring Jenkins shared libraries in Groovy/Java
- Designed CI/CD validation framework enforcing security gates, IAM policies, and deployment readiness checks across 15+ microservices, standardizing release quality across engineering teams

Angel Lane Partners

Remote, UAE

Machine Learning Developer Intern (Part-Time)

May 2025 – Aug 2025

- Enabled risk scoring for 10,000+ clients by co-developing an IFRS9-compliant Bayesian credit risk model
- Improved credit model transparency by engineering 50+ risk features across financial, behavioral, and operational dimensions, enabling data-driven lending decisions at scale

K2 Nextgen Solutions

Gurugram, India

DevOps Engineer Intern

Jan 2024 – Sep 2024

- Accelerated release cycles by 40% by building CI/CD pipelines using Jenkins, Docker, and Terraform
- Built serverless event-driven log analytics pipeline processing 50K+ events/second using AWS Kinesis, Lambda, S3, Athena, and Glue, reducing infrastructure costs by 35%
- Improved application security by integrating Keycloak SSO and AWS security controls

DevOps Engineer Intern

May 2023 – Aug 2023

- Deployed containerized microservices on AWS using Docker and Ansible, reducing deployment errors by 30% and incident resolution time by 25% through centralized logging with Elastic Stack (ELK)

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript, Groovy, SQL, Bash/Shell, Powershell, HTML/CSS

Cloud & Infrastructure: AWS, Azure, Docker, Kubernetes, Terraform, Ansible, ELK, Linux/UNIX

CI/CD & SDLC: Jenkins, GitLab CI, GitHub Actions, Git, Agile/Scrum, Code Reviews, Jira, Confluence

Testing & QA: Test-driven development, JUnit, Pytest, Jest, Unit/Integration/E2E Testing

Databases: MySQL, PostgreSQL, MongoDB, Azure SQL

Frameworks: Spring, Node.js, Django, Flask, React, Bootstrap

ML & Data: PyTorch, TensorFlow, scikit-learn, PySpark, Pandas, NumPy, Transformers

PROJECTS

Multimodal Image Captioning with ViT and GPT-2 | *PyTorch, Transformers, ViT, GPT-2*

2025

- Built end-to-end multimodal pipeline combining Vision Transformers for image encoding and GPT-2 for natural language caption generation, benchmarked on Flickr8K using BLEU, METEOR, and ROUGE metrics

Financial AI Risk & Governance Framework | *Python, XGBoost, LightGBM, MLflow*

2025

- Developed modular Python framework for credit risk modeling using ensemble methods with integrated uncertainty estimation, calibration checks, and fairness diagnostics for transparent model governance

Fetal Health Classification ML Pipeline | *PyTorch, scikit-learn, Pandas, NumPy*

2025

- Built end-to-end classification pipeline achieving 95%+ F1-score through hyperparameter tuning, stratified cross-validation, and neural network architectures for multi-class fetal health prediction

CERTIFICATIONS

Deep Learning (Andrew Ng) | AWS Solutions Architect (A Cloud Guru) | Salesforce Flows (Udemy) | CS50 AI (Harvard)