

# Subah Mehrotra

GitHub: <https://github.com/subahm>

LinkedIn: <https://www.linkedin.com/in/subah-mehrotra-b71484132/>

Phone: (604) 813-8782

Email: [subahmehrotra@gmail.com](mailto:subahmehrotra@gmail.com)

Website: <https://subahmehrotra.com>

## Technical Skills

- **Programming & Automation:** Java, Python, JavaScript, SQL, Selenium, Git, REST APIs, Swagger/OpenAPI, Postman, Bash
- **DevOps & Cloud:** GCP, Terraform, Docker, Kubernetes, CI/CD (Jenkins, GitLab CI, GitHub Actions), Linux
- **Security:** OAuth, SAML, SSO, Identity & Access Management (IAM), Zero Trust Security, SIEM (Splunk, Elastic), CrowdStrike, XSOAR, SSL/TLS
- **Infrastructure & Databases:** MySQL, PostgreSQL, MongoDB, BigQuery, ETL (Pentaho), Control-M, WildFly, Networking (TCP/IP, DNS, VPN)

## Work Experience

### Software Engineer II - (CSO Innovation DevOps Team)

#### TELUS

Calgary, AB

August 2021 to Present

- Designed and implemented an enterprise-wide **IAM system**, integrating multiple systems into a SaaS platform for streamlined security.
- Built **GCP** infrastructure automation using **Terraform**, eliminating manual cloud resource provisioning and reducing misconfigurations.
- Designed and implemented **ETL** pipelines using **Pentaho** to build an application for retrieving CDRs, enhancing data processing efficiency and analysis.
- Designed and developed **REST APIs using Java**, enabling efficient data exchange and system integration.
- Set-up high availability infrastructure for **Java**, **Wildly** and **MySQL** servers improving uptime by 99.99%.
- Led a 7-person **engagement** team, reporting directly to the director.
- **Scrum Master** - Led multiple projects, retrospective meetings and sprint plannings.
- Effectively **trained** and **mentored** junior developers, while overseeing their projects for quality and efficiency.
- Developed and maintained 6+ full stack web systems in an Agile environment
- Experienced with **on-call** operations, software **deployments** and **change management**.

### Security Engineer - (Security Incident Response Team)

#### TELUS

Calgary, AB

November 2020 to August 2021

- Developed **threat-hunting** scripts in **Python** to detect anomalous login patterns, improving detection rates by 25%.
- Coordinated and facilitated security **incident response** for internal teams.
- Optimized security logging and event monitoring by integrating **SIEM** tools (**Splunk**, **ElasticSearch**) into cloud environments.
- Identified, investigated and mitigated major **phishing campaigns**.
- Performed **Malware analysis** and security innovation tools **automation**.
- Successfully completed multiple **PIA** (Privacy Impact Assessment) and **SBD** (Secure by Design) for projects.

### Cyber Security Analyst

#### Deloitte

Victoria, BC

September to December 2019

- Built custom security auditing tools in **Python**, reducing security assessment time by 50%.
- Conducted **penetration testing & vulnerability assessments**, identifying exploitable misconfigurations in cloud environments.
- Developed **incident response playbooks** for ransomware and insider threats, improving security team efficiency.

### Software Test Developer

#### SMART Technologies

Calgary, AB

January to August 2018

- Developed and maintained automated test scripts using **Selenium**, improving test coverage and reducing manual testing efforts.
- Integrated automated tests into **CI/CD pipelines**, reducing deployment failures by **30%** and improving software reliability.
- Optimized **UI test execution time by 50%** by implementing parallel test execution with **Selenium Grid**.
- Designed and executed functional, regression, and smoke tests, ensuring seamless user experiences across web applications.
- Conducted cross-browser testing to ensure compatibility across **Chrome**, **Firefox**, and **Edge**.

Automation Quality Assurance Designer

- Developed and executed **automated test cases** for the **1830 Photonic Service Switch (PSS)**, ensuring high-performance networking capabilities.
- Gained hands-on experience with **networking protocols, telemetry systems, and data transmission** for optical networking solutions.
- Designed and implemented **Python-based automation scripts** to streamline data collection and transmission, improving test efficiency.
- Integrated various **Application Programming Interfaces (APIs)** for real-time data validation and seamless system communication.
- Performed **network performance testing** to validate system reliability, latency, and throughput under different traffic conditions.

NOKIA  
Ottawa, ON  
January to April 2017

Projects

• **Cloud Migration** [Using: GCP, Kubernetes, Docker, Terraform, PostgreSQL] January – April 2025  
Migrated a monolithic Java application from on-premise infrastructure to Google Cloud Platform (GCP), improving scalability and reliability. Containerized the application using Docker and deployed it to Kubernetes (GKE) for automated scaling. Transitioned the database from MySQL to Cloud SQL (PostgreSQL) using Google Database Migration Service (DMS) and optimized queries for PostgreSQL. Automated infrastructure provisioning with Terraform, reducing deployment time and ensuring consistency. Enhanced performance with GCP’s load balancing and monitoring tools, reducing latency and operational costs.

• **Unity – IAM Solution** [Using: Java, MySQL, SaaS] January – December 2024  
Engineered a scalable Identity and Access Management (IAM) solution to centralize employee and non-employee data from multiple organizational systems. The solution seamlessly integrates with an Access Management System, enhancing security, compliance, and access control across the organization. Designed a SaaS-based architecture to support multi-tenancy, scalability, and efficient deployment while optimizing data aggregation and synchronization for improved authentication processes.

• **Converged Data Mediation (CDM)** [Using: SQL, Pentaho, Appian, Java] July – December 2022  
Designed and developed a modern data mediation tool to replace a legacy system at TELUS, enabling the retrieval of Call Detail Records (CDRs) from multiple sources. Built the user interface in Appian to enhance usability and data visualization while implementing the backend workflow in Pentaho using ETL methodologies for efficient data extraction, transformation, and loading. Optimized SQL queries to improve data retrieval performance and developed an automated report generation system in Java, ensuring streamlined reporting for business needs.

• **High Availability Infrastructure Setup** [Using: Java, Linux, MySQL, Control-M] January – July 2021  
Enhanced the high availability and reliability of the SecDevOps team’s infrastructure at TELUS by designing and deploying Data Recovery (DR) Linux servers hosting WildFly and MySQL, ensuring seamless failover and redundancy. Implemented automated data synchronization between primary and DR servers, configured DNS failover mechanisms for uninterrupted access, and automated batch jobs using Control-M to optimize system performance. These improvements significantly reduced infrastructure failures, minimized downtime, and enhanced the availability of compliance and security tools.

Leadership & Certifications

**Department Engagement Prime – TELUS CSO** January 2023 to present

- Led a 7-person team to analyze pulse check results and create action plans to improve department’s engagement scores
- Developed initiatives like training, lunch-and-learns, and team-building activities to foster collaboration.

**CISSP and GCP Certifications Preparation** January 2025 to present

Education

<b>Bachelor of Engineering</b> University of Victoria Software Engineering	September 2015 to August 2020 Victoria, BC Canada
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