Gagan Deep Singh

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EDUCATION

Western University, London, ON	**Master's Computer Software Engineering** (CGPA - 4.0/4.0)	Sept 2023 – Sept 2024
UPES, Dehradun, India	**Bachelor's Computer Science and Engineering**	Sept 2016 – May 2020

SKILLS

- **Fundamentals :** Data Structures and Algorithms, OOPs, System Design(High Level Design and Low Level Design), Rest APIs, Database Management, Micro services, Monolithic, Software Development
- **Frontend Tech Stack :** HTML, CSS, JavaScript, ReactJS, Vue.js
- **Backend Tech Stack :** Spring Boot, JPA, Hibernate, Spring Cloud, API gateway, NodeJs, Express, HashiCorp Vault
- **Libraries/Tools :** Docker, Kubernetes, Log4J, Kafka, Swagger, CI/CD Pipeline
- **Databases :** SQL, NoSQL, MongoDB, PostgreSQL, Redis, Cassandra, Oracle, SQL Server
- **Testing Libraries/Frameworks :** Junit, Mockito, Integration testing, Unit testing, Automation Testing
- **Programming Languages :** C, C++, C#, Core Java, JavaScript, Python, Postman, GitHub, GitHub Actions, Bitbucket, Bamboo, Agile, .Net
- **Cloud Services:** GCP(Kubernetes Engine, Cloud SQL, IAM, Cloud Build, Artifact Registry, Monitoring, Logging), AWS, Azure
- **Soft Skills:** Collaborate, Responsibility, Teamwork, Communication, Accountable, Leadership, Innovative Thinking, Problem Solver
- **Others:** SAP, Information Technology, Network Technologies, Project Management, Web Development, Data Management, Big Data

EXPERIENCE

Nakisa, Montreal, Canada   **Software Engineer**   Feb 2025 – Present

- Built a **Role-Based Access Control (RBAC)** system for the **Nakisa Cloud Platform**, enabling clients to create custom roles with multiple permissions and assign them to users based on access requirements for system security. Implemented **conditional UI rendering** using **Vue.js** with **Vuetify**, and developed the backend with **Java Spring Boot**, **MySQL** and **gRPC** within a **microservices architecture**.
- Developed a **Subscription-based Notification** module to send email alerts for user-subscribed events such as system alerts, new releases, and routing reports. Integrated **JMS** for **asynchronous processing** to ensure scalability and reliability with large datasets.

LTIMindtree, Pune, India   **Software Engineer**   June 2020 – Aug 2023

- Designed and implemented a **Spring Boot application** to automate the management of Call Interaction Policies in Genesys Cloud for the Customer Contact Center. Integrated the batch process asynchronously with a **Pub-Sub model** common messaging platform to update call recordings based on multiple factors, **reducing process time by 30%**.
- Developed a **REST application** that significantly enhanced customer experience by enabling seamless account PIN verification and updates via call, empowering customers to effortlessly access vital information such as balance checks and policy details, thereby **reducing agent call volume by 20%**.
- Migrated repositories from BitBucket to GitHub and deployment pipelines from Bamboo to GitHub Actions, streamlining the **CI/CD** process and enhancing workflow efficiency. Integrated **Hashicorp Vault** for storing encryption passwords, **increasing security**.
- Worked as a member of the **backend development team**, developed and maintained end-to-end applications, managed Infrastructure as Code (IaC) and backend services, conducted JUnit and Integration testing, and designed new features to enhance performance and user experience for **Principal Financial Group**, a global financial investment management and insurance company.
- Promoted to **Software Engineer II within one year** due to **exceptional performance**, well ahead of the 2–3 year promotion timeline.

PROJECTS

- **Online Bookstore** | Full Stack - React, Node.js, Express.js, MongoDB [Link](#)   Dec 2023
  Launched an online bookstore **e-commerce website**, featuring user authentication, shopping cart, advanced book discovery via Google Books API, secure payment integration using Stripe, and an administrative dashboard, and deployed it online using AWS.
- **To Do App Deployment** | DevOps, Kubernetes, Google Cloud Platform, Docker [Link](#)   April 2024
  Engineered and managed a **Kubernetes-based CI/CD pipeline** for deploying a scalable web application on GCP, utilizing Docker, GitHub, and Cloud Build for automated workflows. Created development and production environments in a multi-node setup, with multiple pods for high availability, MongoDB database, and a load balancer to distribute incoming traffic.

PUBLICATIONS

- **An Efficient and Secured Data Sharing Approach Through Image Transmission** [IEEE-ESCI](#)   Mar 2021
  This research paper presents a two-layered security method for data hiding by combining **Steganography and Visual Cryptography**. Received **Best Paper** of the Session award.
- **A Data Visualization Approach for Predicting the Income Class of Population** [IEEE-ICECA](#)   Dec 2021
  This paper predicts income classes using **regression techniques** and correlation coefficients, supported by **data visualizations**.