Regina, Canada
https://singh47.github.io/

Harmandeep Singh

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Objective

Seeking an opportunity in engineering in a growth oriented organization where I can utilize my skills to develop robust applications and infrastructure.

Summary of Skills

Accomplished software developer with over 8 years of experience in designing, building, and maintaining resilient and scalable microservices and infrastructures across diverse tech stacks and industries. Expert in Python, Node.js, and cloud-native technologies with a proven track record of leading development teams through complex software solutions.

- Contributed in multiple high-impact software projects for both startups and established organizations, employing **Agile** and **SDLC** methodologies.
- Developed robust applications utilizing **Python's** MVC frameworks (Django, Flask, FastAPI), along with **NodeJS** platform (ExpressJS, and Fastify)
- Led the design and implementation of microservices architecture in containerized (**Docker**) and orchestrated (**Kubernetes**, Helm, **Argo**) environments, optimizing system scalability and reliability.
- Managed messaging protocols and event streaming architectures including **RabbitMQ**, **Kafka**, SNS, SQS and MQTT, enhancing system integration and data flow.
- Designed and developed solutions using in memory databases like **Redis**, Memcache and Amazon MQ
- Implemented cloud solutions using **AWS**, **GCP**, and **Azure**, improving deployment strategies and system availability. Experienced in managing EC2, ECS, GKE, lambda and Heroku environments.
- Developed and maintained scalable and efficient **CI/CD pipelines**, significantly reducing deployment times and improving code quality and integration.
- Designed and implemented network solutions including NGINX, Route53, **reverse proxies**, **service meshes**, and advanced **load balancing** strategies to optimize application performance and reliability.
- Enhanced observability and system reliability using tools like **OpenTelemetry**, **New Relic**, and **Datadog**, Sentry, **Cloudwatch** and PagerDuty providing deeper insights into systems.
- Recognized for excellent leadership in mentoring junior developers and leading cross-functional teams, improving team productivity and project outcomes.

Professional Experience

Flashfood   **Toronto, Canada**
Senior Software Developer   **March 2022 – Present**
- Responsible for adding new features in backend services using **NodeJS** and typescript.
- Managing BFF services, and integration with **react native** frontend.
- Deploying and ensuring reliability of services on **Kubernetes** using ArgoCD and **New Relic**.
- Managing Infrastructure for micro service using terraform, azure, key vaults and helm.

Blackline Safety   **Calgary, Canada**
Senior Software Developer   **Nov. 2021 – March 2022**
- Developed and deployed **python services**, APIs, integrations and unit tests, fabric and tcp servers in python using tornado and **twisted**.
- Worked closely with SREs to ensure reliability of services, using **Datadog** and **PagerDuty**.
- Improved reliability of services, including tcp and udp servers, deploying to **lambda**, using heath checks and various metrics like statsd.
- Integrated applications with various services like RabbitMQ, Amazon SNS, Kafka, Celery.
- Implemented AWS **CodeBuild**/**CI** pipelines for existing python projects.

Intragrain Technologies   **Regina, Canada**
Server Developer   **Oct. 2020 – Nov 2021**
- Responsible for designing and developing micro services in containerized environment.
- Designed and developed data monitoring system using **Kafka**, Zabbix, Grafana, Influxdb.
- Responsible for developing and managing docker builds and **Kubernetes** deployments.
- Deployed micro services using yaml configurations for Kubernetes and GKE.

Khalsa Labs
Application Developer   **Aug 2017 – Oct 2020**
- Designed and programmed an automated blogging application using python, nginx.
- Worked on a **ReactJs** application, a front end for a fitness activity tracking application.
- Developed a Pi based face recognition project and **micro python** firmwares for ESP32.
- Design, document, and implementation of the project 'Analysis of DOS and DDOS attacks' using **Deter testbed** network and python scripts.

Lab91 Software Pvt. Ltd
Software Developer   **Sep 2015 – June 2016**
- Developed Inventory management system to handle 30k plus products inventory and daily transactions of sale and purchase, using python.
- Continuously develop and maintain the customer relationship management system using Django that is responsible for solving hundreds of customer's queries per day.
- Configure and Manage Linux servers for **django based ecommerce** websites by enabling the **WSGI** and SSH, Virtual Hosts on each server.
- Responsible for training and development program for company interns and junior employees.

Redlizard Studioz Pvt. Ltd
Software Developer   **Aug 2013 – Aug 2015**
- Designed database architecture to handle over a million e-commerce products without losing website performance.
- Optimized the search performance by 33% of e-commerce platform by replacing existing platform's **ORM queries** to SQL queries.
- Developed and developed REST based APIs for mobile application and worked back and forth with mobile development team to ensure the integration process goes smoothly.
- Managed third party integrations with Celery, Monit, Mailchimp, Paypal, and AWS Boto.

Hadron Solutions Pvt. Ltd
iPhone Game Developer, Intern   **Jan 2013 - April 2013**
- Programmed game logic and physics engine for iPhone based 2D games.
- Debug and optimize various game projects using XCode's profiler.

- Responsible for submitting game source code written in Objective-C under team deadlines.

Education

Post Graduate Certificate in Management, Parkland College Yorkton, SK   2016-2017

Bachelors in Technology (Information Technology), **Punjab Technical University** 2010-2013
Coursework: Algorithms & Data Structure, Operating Systems, Networks
Senior year project work focused on developing a VNC server in python, GPA: 8.0/10.0

Skills

Languages and Frameworks: Python (Django, Flask, FastAPI), Node.js (Express, Socket.IO), Go, React, Vue.js
Python Modules: Xlrt, PIP, Requests, Virtualenvs, OpenCV, uWSGI, Numpy, tensorflow
Infrastructure and DevOps: Docker, Kubernetes, Helm, Argo, RabbitMQ, Kafka, MQTT, NGINX, AWS, GCP, Azure, CI/CD pipelines
Monitoring and Observability: OpenTelemetry, New Relic, Datadog, Statsd