

# Gur Raunaq Singh

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<https://raunaqness.com>

## SUMMARY

Results-driven Senior Machine Learning Engineer and Team Lead with 8+ years of experience designing and deploying scalable ML and AI systems. Proficient in Python and JavaScript, with expertise in LLMs, RAG pipelines, and AI Agents using LangChain and LangGraph. Extensive experience across Cloud (GCP, AWS, Azure) and MLOps/DevOps - driving automation, cost optimization, and reliable end-to-end delivery of production-grade AI solutions.

## TECHNICAL SKILLS

<b>Programming Languages</b>	Python, JavaScript
<b>AI/ML Frameworks</b>	PyTorch, Scikit-learn, LangChain, LangGraph, LangSmith
<b>Cloud Platforms</b>	Google Cloud Platform (GCP), AWS, Azure
<b>MLOps / DevOps</b>	Docker, Kubernetes, Terraform, Jenkins, Prometheus, Grafana
<b>Databases and Workflow</b>	BigQuery, Airflow, PostgreSQL, MongoDB, Kafka, Redis
<b>Web Frameworks</b>	FastAPI, Django, React
<b>Testing &amp; Monitoring</b>	Pytest, Locust, Graphene

## PROFESSIONAL EXPERIENCE

### FREELANCE SOFTWARE DEVELOPER

#### Remote, India

Sept 2025 - Present

- Designing and developing **AI-powered tools, RAG-based chatbots, and AI Agents** using Python, LangChain, LangGraph, and FastAPI, focusing on rapid prototyping and scalable deployment.
- Building an evolving portfolio showcasing hands-on projects, technical explorations, and open-source contributions: <https://raunaqness.com/proof-of-work>
- Currently exploring multi-agent orchestration and applied AI workflows for real-world automation and research-driven problem-solving.

### APTOPS INDIA

#### Machine Learning Engineer, Bangalore, India

JAN 2023 - Sept 2025

- Architected distributed system infrastructure on **GCP and BigQuery**, optimizing large job runtimes by 40% and reducing cloud costs by 60%, generating **\$240K annual savings**.
- **Led the migration and modernization** of a legacy product by recreating functionality using Python, BigQuery, and cloud-based technologies, improving system scalability and reducing operational costs by 20%.
- Collaborated closely with the Cloud Engineering Team to implement tailored alerting and telemetry systems using Prometheus and Grafana for customer-facing web applications, resulting in a substantial reduction in production issue resolution time from **1-2 days** to just a **few hours**
- Led the development of an LLM-based ChatBot POC using open-source technologies and Google VertexAI, enhancing functionality for a B2B dashboard product and elevating the customer experience
- Provided mentorship to 4 junior engineers in the team, offering guidance in the adoption of best coding practices, assisting in overcoming technical hurdles, and cultivating a culture of collaboration within the team

### TURING.COM

#### Senior Software Engineer, Remote

APRIL 2022 - DECEMBER 2022

- Led the design and implementation of end-to-end machine learning pipelines, leveraging Python, Django, Airflow, GCP, and Docker, in collaboration with non-engineering teams, resulting in up to **60% reduction** in model deployment time
- Contributed to enhancing collaboration and knowledge sharing at Turing by presenting innovative approaches to key stakeholders, organizing training workshops for cross-functional teams, and actively participating in product discussions, offering valuable feedback in technical decision-making processes

## **CLICKPOST PVT LTD**

**Senior Software Engineer, Bangalore, India**

APRIL 2021 - April 2022

### Cash Reconciliation Tool

- Developed a customized Cash Reconciliation tool for 100+ Clickpost customers which accept COD orders, reducing manual reconciliation time by **up to 95%**, from nearly 2 days to just a few minutes.
- Engineered the tool from scratch, working with 2 junior engineers, incorporating backend APIs, intricate CSV parsing, and extensive financial data processing to automate the reconciliation process and enable seamless and accurate generation of financial reports.

### Product Recommendation System

- Developed a product recommendation system for the courier partner shipments tracking page, leveraging historical data and pre-trained models within Azure ML Studio to suggest new products to returning users
- Implementation of the recommendation system resulted in a remarkable **up to 5x increase** in product click rates, enhancing user engagement and satisfaction on the platform

### AWS to Azure Cloud Migration

- Collaborated with a senior engineer to successfully migrate Clickpost's SaaS platform from AWS to Azure in under two months, achieving the transition seamlessly without any downtime in existing services
- The migration was required for the onboarding of a large US-based client, which was projected to generate over **1 Million USD** in annual revenue

## **VEDA LABS PVT LTD**

**Software Engineer, Remote**

JULY 2018-April 2021

- Developed a custom Streaming Video Analytics System, employing containerized architecture for Edge Device deployment, utilizing Python, OpenCV and Docker
- Deployed the solution on-premises for clients, leveraging CCTV footage to perform on-device Video Analytics, including Gender and Age Estimation, and generating Heat maps for store sections, enhancing customer experiences
- Leveraged technologies such as Kafka, Zookeeper and Docker Swarm to ensure scalability, flexibility, and real-time data processing capabilities, empowering businesses to make informed decisions and optimize operations.

## **EDUCATION**

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**SCALER ACADEMY**

New Delhi, India

**Software Bootcamp - Data Structures and Algorithms**

2019-2020

**INDRAPRASTHA UNIVERSITY**

New Delhi, India

**Bachelor of Technology, Computer Science Engineering**

2014-2018

## **OTHER ACHIEVEMENTS**

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- Co-author of the book [Amazon Sumerian by Tutorials](#) (ISBN: 1942878877)
- Guest author at [RealPython.com](#) and [Kodeco.com](#) and have published many tutorials on Python, Alexa Skills and Unity 3D