# SATPREET MAKHIJA

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## WORK EXPERIENCE

**Firebolt**                                                                    Nov 2025 - Present
*Software Engineer*

- Joined the **founding engineering team** to build the first version of Firebolt's **self-hosted platform**, enabling enterprise customers to deploy the data warehouse in isolated, air-gapped environments.
- Designed and built an **in-house air-gapped feature flags system** from scratch, reducing operational costs by **$50,000 annually** and enabling dynamic configuration in isolated deployments.
- Implemented an **air-gapped Temporal workflow engine** and partnered with early customers to deliver successful proof-of-concepts and **production deployments** of the self-hosted platform.

**Google**                                                                    Mar 2024 - Sept 2025
*Google Distributed Cloud (GDC), Software Engineer*

- Built a **self-healing container registry** for air-gapped Google Cloud deployments on a **40kg portable device**, using Kubernetes controllers to ensure automated recovery and high availability.
- Designed and implemented a **signature verification system** for container images, enabling software integrity checks and secure validation of Google software shipped to customer data centers.
- Architected the **networking infrastructure** for the artifact registry product, creating a **secure service mesh** using Istio to connect artifact distribution and monitoring across multicluster environments.
- Built a **scalable monitoring stack** to collect metrics from system workloads, and designed a **customer-facing API** for metrics scraping, alerting, and dashboard creation using Grafana and Prometheus.
- Served in on-call rotations to resolve customer escalations and deliver critical bug fixes for Google Distributed Cloud's artifact management platform.
- **Mentored an intern** to design and implement a metrics adapter for collecting telemetry data in OpenTelemetry format, driving the project from conception through production deployment.

**Google**                                                                    Jul 2022 - Mar 2024
*Strategic Cloud Engineer*

- Designed **infrastructure-as-code** for a shopping platform to automate provisioning of **Kubernetes clusters, private networks, and organization policies** on the cloud.
- Implemented a proof of concept for **Data Insights**, an **AI-powered natural language query engine** for tabular data, now **publicly available** in Google Cloud's data management product.
- Contributed to **open-source Dataproc tools** for big data processing using Spark and Hadoop, delivering with **end-to-end ownership** a feature that automatically transfers data from MongoDB to BigQuery.

## EDUCATION

**Ashoka University**                                                                    Aug 2018 - Apr 2022
Bachelors of Science (Honours) Computer Science
Department of Computer Science                                                    **Major CGPA: 3.74/4**

## TECHNICAL SKILLS

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|---|---|
| **Programming Languages** | Golang, Python, Typescript, Javascript, Terraform, Nix |
| **Frameworks and Tools** | NodeJS, Docker, PostgreSQL, Kubernetes, Istio, Git, Linux |