

KUSHAGRA BAINSLA

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WORK EXPERIENCE

LinkedIn

Systems & Infrastructure Engineer Intern

May 2026 – August 2026

- Engineered a live ML workload checkpoint-restore system by capturing and migrating complete **CPU and GPU execution state across heterogeneous machines** using **CRIU, CUDA, and Kubernetes**, enabling fault-tolerant, preemptible training with zero data loss.

Uniqode

Senior Software Engineer

Aug 2024 – Jun 2025

- Led the development and maintenance of backend systems (**monolith server, microservices, and cloud-native components**) for our **\$2M ARR Digital Business Card platform, achieving 99.99% uptime** with high scalability, performance, and fault-tolerance.
- Architected an **event-driven email automation system** that sent configurable follow-up emails (custom content, sender identity, OAuth 2.0, delivery delays), processing thousands of events daily with **99.9% reliability and driving 36% engagement growth**.
- Devised and implemented a **real-time adaptive notification engine** processing **1M+ cross-platform notifications** daily (Android, iOS/APNs, email, in-app) with intelligent throttling and prioritization logic, ensuring timely delivery and reducing opt-outs by **22%**.
- Optimized logging infrastructure by **eliminating 4.2B unnecessary logs/year** through log-level tuning and filtering, reducing I/O overhead and **saving 300+ EC2 compute hours annually**, while cutting Datadog **monitoring costs by \$12K/year**.

Software Engineer

Aug 2022 – Jul 2024

- Spearheaded the backend migration of **analytics infrastructure** from Elasticsearch to Apache Pinot, optimizing real-time data querying and **reducing P95 query latency by 97.6% (25s to 600ms)**, while cutting **operational costs by 30%**.
- Constructed a high-throughput **email reporting pipeline** to generate and distribute weekly analytics for **200K+ products**, leveraging asynchronous processing to boost engagement and product discovery.
- Collaborated with customer success, product managers, sales, and engineering teams to deliver **integrations with Azure AD and Salesforce CRM, contributing to \$300K+** in annual enterprise revenue.
- Engineered a **flexible incentive system** integrated with Stripe to apply and expire usage-based rewards (e.g., feature unlocks, limits increase, plan upgrades) over billing cycles, **cutting churn by 34%** via automated, targeted retention strategies.
- Enhanced scalability and **cut public API latency by 42%** through query optimization and replacing Django defaults with custom, high-performance utilities, bringing **P95 latency consistently under 120ms**.
- Mentored **3 backend interns**, led **70+ interviews**, and improved documentation to streamline onboarding and knowledge transfer.

Software Engineering Intern

Feb 2022 – Jul 2022

- Developed RESTful APIs and optimized database workflows for bulk operations (creation, export, soft delete, labeling), leveraging asynchronous processing, batched inserts, and query tuning, **reducing processing latency by 40% and bulk action time by 12x**.
- Implemented an IP **threat monitoring service** to detect Tor, VPN, and bot activity, enhancing analytics security by enabling real-time threat detection with minimal performance impact.

LetsEndorse Development

Summer Intern

May 2021 – Jul 2021

- Built modular, reusable React.js dashboards, improving UI performance and KPI/metric tracking time from **90m to 5m**.
- Crafted **15+** React Native app screens, **optimizing user interfaces and workflows** to double delivery partner efficiency.

PROJECTS

Sentinel: Architected a **distributed, serverless email platform** processing **200K+ emails/month at under \$50 cost**, implementing async job queues, real-time event ingestion, multi-region replication, and fault-tolerant processing (retries, DLQs) for high-throughput workloads.

Build-flask-app: Built an **open-source Flask CLI** for production-ready scaffolding (WebSockets, DB, testing), standardizing setup and reducing onboarding from hours to minutes; **42K+ downloads** on PyPI.

north: Multi-layer multi-agent **LLM orchestration system** with **dynamic model pool tiering**, append-only audit trail for **partial task reconstruction** without redundant inference, and an **adaptive preference engine** that learns user judgment patterns over time.

TECHNICAL SKILLS

Languages: Python, Go, JavaScript, TypeScript, C, C++, Haskell, Rust, SQL, YAML, Bash

Framework & Libraries: Django, DRF, Flask, Node, GraphQL, Celery

Databases: PostgreSQL, MongoDB, Redis, DynamoDB, Apache Pinot, Elasticsearch

Tools & Cloud: Git, Docker, Sentry, Datadog, AWS (VPC, SQS, SNS, SES, EBS, S3, EC2, ECR, RDS, Lambda, Redshift, CloudFormation, Amplify, API Gateway, Cognito, CloudWatch), Kafka, Terraform, GitHub Actions, Kubernetes, Auth0, Nginx, Postman

EDUCATION

Master of Science in Computer Science, San Jose State University (GPA: 4.0/4.0)

Aug 2025 – May 2027

Coursework: Database Systems Principles, Distributed Systems, Cloud Computing, Advanced Parallel Processing, Machine Learning

Bachelor of Technology in Computer Science & Engineering, Kurukshetra University

Aug 2018 – Jul 2022

Coursework: Data Structures and Algorithms, Advanced Algorithms, DBMS, Object Oriented Programming (OOP Designs & Patterns), Computer Networks, Operating Systems, Agile, Software Development Lifecycle (SDLC)

ACHIEVEMENTS

- CodeKaze: Rank **292/100K+**.
- LeetCode Biweekly 73: **214/18.5K (Top 1.1%)**, India Rank **35**.
- ScalerCodeX 2.0: **Top 2.8%** among **28.9K**.
- LeetCode: **Top 0.12% globally**, peak rating **1963 (Knight)**, Top **600** in India.