

# KUSHAGRA BAINSLA

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## EDUCATION

**Master of Science in Computer Science**, San Jose State University

Aug 2025 – May 2027

Coursework: Database Systems Principles, Distributed Systems, Cloud Computing, Parallel Computing

**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)

## TECHNICAL SKILLS

**Languages:** Python, JavaScript, TypeScript, SQL, C, C++ , HTML, CSS, YAML, Bash Shell

**Framework & Libraries:** Django, DRF, Flask, Node, React, React Native, Angular, Express, Flutter, GraphQL, Serverless Framework

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

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

## WORK EXPERIENCE

### Uniqode

Senior Software Engineer

Aug 2024 – Jun 2025

- Led the development and maintenance of backend systems (**monotonic 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 12×**.
- 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 dashboard components in React.js, 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

**CuriosityAI @CalHacks 12.0:** Designed a **Generative AI discovery engine** using **vector embeddings, ChromaDB, Fetch.ai agents, and dimensionality reduction** to visualize sparse research clusters in 3D and auto-suggest novel, feasible research topics with starter code.

**Sentinel:** Built an **email marketing/analytics suite** capable of handling **100K+ emails/month** at under **\$50 infrastructure cost**. Designed bulk email delivery, real-time event ingestion, and engagement tracking powered by real-time analytics pipelines.

**Build-flask-app:** Created an **open-source CLI tool** to automate Flask project scaffolding, including WebSocket integration, database initialization, and testing frameworks. It **reduced developer onboarding time from hours to minutes** with consistent, production-ready templates and has **achieved 41K+ downloads** on PyPI, validating strong community demand and real-world impact.

## ACHIEVEMENTS

- Secured Rank **292** out of **100K+** participants in CodeKaze.
- Secured Global Rank **214** out of **18.5K**, India Rank **35** in LeetCode Biweekly Contest 73. (**Top 1.1%**)
- Secured a rank in the **top 2.8%** out of **28.9K** participants in ScalerCodeX 2.0.
- Earned the 2021 LeetCode Badge (**Top 0.12% globally**); peak rating **1963 (Knight)**, ranked in the **Top 600** in India.