Kushagra Bainsla

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Education

San José State University **Aug 2025 – May 2027 (Expected)**
Master of Science in Computer Science *San José, CA, USA*

Kurukshetra University **Aug 2018 – Jul 2022**
Bachelor of Technology in Computer Science & Engineering *India*
Relevant Coursework: Data Structures and Algorithms, Advanced Algorithms, DBMS, OOP, Computer Networks, Operating Systems

Technical Skills

Languages: Python, JavaScript, TypeScript, SQL, C, C++, HTML, CSS, Shell scripting

Framework & Libraries: Django, DRF, Flask, React, React Native, Angular, Express, GraphQL, Playwright

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

Tools & Cloud: Git, Docker, Datadog, AWS (SQS, SES, EBS, S3, EC2, ECR, RDS, Lambda, Redshift, CloudFormation), Celery, Serverless Framework, GitHub Actions, LaunchDarkly, Amplitude, Stripe, Sentry, Auth0, Nginx, Firebase, Froala, Hasura, Postman

Work Experience

Uniqode

Senior Software Engineer *Aug 2024 – Jun 2025*

- Engineered and maintained backend systems for a **$2 Million ARR** Digital Business Card platform, achieving **99.99% uptime** while ensuring high performance, fault tolerance, and scalability.
- Built a scalable, event-driven email automation system using Celery and Gmail API (OAuth 2.0), enabling users to send delayed, personalized follow-ups from their own accounts, boosting engagement rates by **36%** via human-like communication.
- Designed and implemented an adaptive notification engine using Celery and Python, improving message relevance by **40%** by dynamically selecting optimal delivery modes (immediate, digest, auto) based on real-time user engagement patterns.
- Designed and constructed a secure, scalable public event ingestion pipeline for Amplitude with request validation and transformation logic, reducing analytics data loss by **97%** and improving data integrity across client platforms.
- Optimized logging infrastructure by eliminating **4.2 Billion** 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*

- 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**.
- Contributed to 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.
- Developed 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.
- Accelerated bulk upload (creation) and labeling workflows for **10K+** records by **12x** with optimized database operations, including batched inserts and query tuning, significantly enhancing scalability and throughput.
- Improved engineering onboarding by mentoring **3 backend interns**, reducing ramp-up time by **30%**. Conducted **70+** technical interviews across all levels, and updated official documentation to support faster knowledge transfer and consistency.

Software Engineering Intern *Feb 2022 – Jul 2022*

- Developed RESTful APIs for bulk operations, including CSV export and soft delete, optimizing data processing and reducing bulk action completion time by **40%** through efficient query handling and asynchronous processing.
- Implemented an IP threat monitoring service to detect Tor, VPN, and bot activity, enhancing analytics security and enabling real-time threat detection with minimal performance impact.
- Reduced technical debt by resolving legacy bugs and achieving **93%** average test coverage through comprehensive API unit testing.

LetsEndorse Development

Summer Intern *May 2021 – Jul 2021*

- Built modular dashboard components in React.js, reducing time to track KPIs and business metrics by over **10x**.
- Crafted **15+** screens for a React Native delivery partner app, optimizing user interfaces and workflows to double user efficiency and significantly enhance the overall delivery partner experience.

Projects

Sentinel: Built an internal email tracking system using AWS SES, SQS, and tracking pixels with real-time, decoupled processing; enabled marketing teams to make data-driven content decisions and improved email engagement metrics by **40%**.

Build-flask-app: Created an open-source CLI tool that automates the setup of Flask applications, integrates WebSocket support, and initializes databases. The tool has gained **10,000+** downloads on PyPI, streamlining project setup and improving development efficiency.

Achievements

- Secured Rank **292** out of **1 Lakh+** participants in CodeKaze.
- Secured Global Rank **214** out of **18,529**, India Rank **35** in LeetCode Biweekly Contest 73. **(Top 1.1%)**
- Secured a rank in the **top 2.8%** out of **28,991** 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.