Kunal Dutta

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PROFESSIONAL EXPERIENCE

SoFi | San Francisco, CA

Software Engineer II (Payments)   January 2025 - Present
- Migrated debit card APIs to a GraphQL backend-for-frontend layer, reducing data payloads per request by up to 95% and enabling scalable, modular frontend development.
- Led cross-functional delivery across engineering teams, product managers, and risk management executives to enable members to view debit card information in the mobile app.
- Proactively discovered and resolved a critical payment bug erroneously debiting ~10 members/day; deployed fix and prevented future financial risk and complaints.

Software Engineer II (Bank)   July 2022 - January 2025
- Spearheaded migration of direct deposit identification from plaintext to encrypted AWS S3 storage, eliminating a critical security vulnerability while maintaining system integrity via shadow mode ACH processing.
- Designed and implemented a self-service API enabling non-engineering teams to manage direct deposit rule sets, reducing update cycle time from 2 days to real-time and increasing operational efficiency.
- Led end-to-end resolution of an infinite loop wire processing bug affecting 5–10 wires per week, saving 3+ hours weekly in manual remediation through automated error handling refactor.
- Delivered wire monitoring solutions by integrating Temporal workflows, Datadog dashboards, and email signal tracking, reducing detection and response times from hours to minutes.
- Led cross-team alignment and UI development for the back-office wire dashboard, enabling FINRA oversight and unlocking the self-service wires feature.
- Resolved multiple production incidents across wire processing and direct deposit systems; improved documentation and on-call readiness for faster incident response.

SoFi | San Francisco, CA

Software Engineer Intern (Big Data Infrastructure)   June 2021 - August 2021
- Integrated Terraform into SoFi's cloud provisioning workflows, automating infrastructure deployment and standardizing resource creation across teams.
- Automated database and cloud resource provisioning, reducing manual configuration errors and deployment time by 80-90%.

EDUCATION

University of California, Berkeley   May 2022
Bachelor's of Arts, Computer Science
Relevant Coursework: Algorithms; Data Structures; Operating Systems; Artificial Intelligence; Databases; Optimization; Robotics; Data Science
Activities: Delta Kappa Epsilon, Cal Mic Men, Sports Analytics Group at Berkeley

SKILLS

Languages: Kotlin, Java (Spring Boot), Python, Shell
Frameworks and Tools: GraphQL, Kafka, Temporal Terraform, Datadog, GitLab CI/CD, Postman
Cloud and Infrastructure: Amazon Web Services (S3, DynamoDB, CloudFormation), Snowflake

PROJECTS

Smart Surveillance System|Engineering Project
https://github.com/kdutta9/Smart-Surveillance
- Implemented real-time motion detection system using Python OpenCV.
- Alerts a user with Twilio API when motion is detected and stores the footage in the cloud.
- Built hardware systems with Raspberry Pi and cameras, which deployed to an 18-house neighborhood.