SIDDHARTH JAIN

Seeking Backend Engineer Role

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EDUCATION

University of Illinois Urbana-Champaign (UIUC) — Expected: December 2025
Master of Computer Science

- Courses Taken: Advanced Distributed Computing, Computer Security, Cloud Networking, Deep Learning For Computer Vision

Arizona State University (ASU) — August 2020 – May 2024
Bachelor of Science in Computer Science — *4.00 GPA*

- Courses Taken: Distributed Systems, Software Design Principles, Operating Systems, Data Structures & Algorithms, Computer Networks

WORK EXPERIENCE

Backend Engineer Intern — May 2025 – Current
PayPal Inc. (Credits Teams - Buy Now Pay Later) — *Scottsdale, AZ*

- Engineering **Spring Batch** pipeline to automate reconciliation of over **6.5M+** failed financial events, reducing manual **SQL** fixes.
- Implementing event requeue logic based on lifecycle state transitions and timestamps to ensure correctness and idempotency at scale.
- Troubleshooting **QA failures** using distributed log analysis and event state inspection; validating batch behavior across systems.
- Writing unit and integrated tests using **JUnit, Mockito, and WireMock** for end-to-end validation; building observability dashboards.

Cloud/DevOps Engineer — January 2025 – April 2025
Nexus — *Remote, USA*

- Defined **AWS architecture** for multi-user coding platform, enabling CI/CD, **ECS scaling**, and region-based production readiness.
- Reduced deployment time by 90% with **3 GitHub → CodeBuild CI/CD pipelines** for frontend, backend, and infrastructure.
- Refactored EC2-based stack to serverless AWS **(ECS, EFS, S3, Route53, DynamoDB)** with CDK, reducing infra overhead by 30%.
- Delivered production-ready deployment in 6 weeks by aligning infra roadmap with dev workflows and cross-team priorities.

Software Development Engineer Intern — May 2023 – August 2023
Amazon.com (3rd Party Payments Team) — *San Diego, CA*

- Built automated orchestration with **Lambda, SQS, Java & TypeScript** to back-fill a million records, saving developer time by 99%.
- Architected 1-click reusable cloud stack using **AWS:CDK** to perform batching for downstream services with rate-limited TPS.
- Constructed robust error handling mechanism with **automated retries** for transient errors reducing failure, ensuring 100% data integrity.
- Tested system end-to-end using JUnit5 achieving 100% code coverage. Deployed real-time monitoring dashboard using **CloudWatch**.

PROJECTS

Banking Easy | Network Engineer | *Java, Network Programming, Sockets, TCP/IP*

- Implemented P2P banking application in **Java (Sockets)** leveraging **network programming** to perform parallel processing transactions.
- Created a shared customer cohort with a bank to perform 100+ transactions and update the system state in real-time.
- Reduced error rates by 30% by deploying advanced checkpoint and rollback algorithms, managing transaction conflicts, data corruption, and network failures.

360Torrent | Distributed Systems Engineer | *Python (asyncio), Ansible, tmux, P2P Systems, BitTorrent*

- Developed a **Python-based P2P CDN** for 360° video, reducing download latency by 42% via geo-aware chunk prioritization.
- Designed churn-resilient downloader using **asyncio**, adaptive health checks, and rarest-first strategy; improved reliability by 35%.
- Deployed system on 20 VMs using **tmux, tc, and Ansible,** simulating 100+ clients with region-aware network conditions.
- Integrated popularity matrix at tracker; pre-seeded hot chunks across peers, cutting startup latency by 28%.

Study Buddy | Full-Stack iOS Developer | *SwiftUI, Firebase, CoreData, C#*

- Engineered an **iOS app** leveraging **MVVM** to facilitate collaboration by providing a platform to search, create, and join study sessions.
- Established **Firebase-Auth**, offering users sign-in options via Email, Google, and Apple for enhanced authentication flexibility.
- Implemented local **(CoreData)** and cloud **(Firestore)** data storage, ensuring seamless data retention and optimized retrieval processes.
- Integrated **MapKit** to allow users to set study session locations. Streamlined navigation process, ensuring accuracy within a 10m range.

SKILLS

Languages:	Python, Java, C/C++, TypeScript, JavaScript
Backend & Systems:	Spring Batch, MySQL, JDBC, Git, JUnit, Linux, XML, JSON
Distributed Systems:	AWS {CDK, Lambda, SQS, S3, ECS, EFS, EC2, RDS, API-Gateway, CloudWatch}
Authentication & Tools:	Firebase {Auth, Firestore}, RESTful APIs, Ansible, tmux, CoreML, CocoaPods