SIDDHARTH JAIN

Seeking Software Engineer Role For 2026

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EDUCATION

University of Illinois Urbana-Champaign (UIUC)

Master of Computer Science

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

Arizona State University (ASU)

Bachelor of Science in Computer Science

August 2020 – May 2024

Expected: December 2025

4.00 GPA

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

WORK EXPERIENCE

Software Engineer Intern

PayPal Inc.

May 2025 - Current 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

Nexus

January 2025 – April 2025

- 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 \rightarrow 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

Amazon.com

May 2023 – August 2023

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

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.

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.

SKILLS

Java, Python, C/C++, JavaScript, TypeScript, C#, SQL Languages:

Cloud & Platforms: AWS {CDK, Lambda, SQS, S3, EC2, ECS, CloudWatch}, Firebase {Auth, Firestore}

Testing & Automation: JUnit 5, Mockito, WireMock, Spring Batch, CI/CD Pipelines, Git Web & Frameworks: React.js, SwiftUI, ASP.NET, RESTful APIs, HTML, JSON, XML