SIDDHARTH JAIN

Seeking New Grad SWE 2026

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EDUCATION

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

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

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

- Courses Taken: Computer Networks, Digital Design, Distributed Systems, Operating Systems, Software Design Principles

WORK EXPERIENCE

Software Engineer Intern May 2025 – August 2025
PayPal Inc. *Scottsdale, AZ*

- Engineered **Spring Batch** pipeline using **Java & Raptor** reducing manual **SQL** fixes by 90% and enabling millions of loan reconciliations.
- Built idempotent and thread safe batch job architecture resolving data staleness across **BigQuery** and **SOR** distributed systems at scale.
- Optimized **BigQuery** slot utilization by 75%, saving costs while maintaining system performance and increasing loan processing capacity.
- Implemented **Skip Listeners** with concurrent failed record accumulation, performing batch writes achieving 200x faster processing.

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 Engineering Fellow January 2024 – May 2024
Andbounds *Remote, USA*

- Led **CMS & iOS** app migration projects for e-commerce focused on scanning and selling custom insoles for podiatry patients.
- Leveraged TrueDepth sensors and **Core ML** with TheStandardCyborg library to detect and export 3D foot scans.
- Migrated iOS application with 40+ pages from storyboard to **SwiftUI** leveraging MVVM architecture and CocoaPods as PDM
- Integrated 15+ Shopify's Rest APIs to the iOS app to authenticate users, fetch order and user details, export scans, and place orders.

Software Development Engineer Intern May 2023 – August 2023
Amazon.com *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**.

Software Engineering Tutor August 2021 – May 2023
Arizona State University *Tempe, AZ*

- Coached 1000+ students to master MAT courses, **Data Structure & Algorithm**, and interview prep, enhancing study strategies.
- Prepared online study materials on **Java, C++, Java-FX, Calculus I/II**, and introductory business Math, engaging 5k+ students.
- Conducted 20+ review sessions covering essential concepts to prepare for student exams, quizzes, assignments, and class projects.

Undergraduate Teaching Assistant August 2021 – May 2023
Arizona State University *Tempe, AZ*

- Served as a course assistant for Introduction to Java, Data Structures & Algorithms, and Introduction to Theoretical Computer Science.
- Collaborated with teaching staff to design weekly lesson plans focused on the course material and student-focused questions.
- Held office hours to address assignment-related questions and provided personalized feedback on coding assignments.

PROJECTS

PitchPal | ML Engineer | *PyTorch, Torchvision, OpenCV, CNN, MediaPipe*

- Designed and implemented an **AI-powered multimodal analysis system** that evaluates elevator pitches using speech and facial cues.
- Built a nervousness classification model using **EfficientNet-B0** trained on custom-labeled facial expressions, achieving **80% accuracy.**
- Integrated eye contact detection using a **pre-trained CNN-based** facial gaze tracker, to enhance nervousness classification.
- Developed a fully automated local inference pipeline for video analysis with **PyTorch, OpenCV, dlib, and MediaPipe.**

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#* **GitHub**

- 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* **GitHub**

- 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.

FastOrder | Full Stack Engineer | *C#, ASP.NET, WCF, RESTful*

- Deployed a **Service-Oriented Web App**, using **ASP.NET**, on Web Server that imitates an E-Commerce Site for 1000+ users.
- Executed 3+ **ASPX pages**, for Users and Staff, calling Web Services to encrypt data, store cookies, update cart and pay.
- Created 5+ **WCF & RESTful Services** to manipulate XML files data, eliminating the need of Database by 100%.

Rent Linkers | Full Stack Engineer |*React.js, Python, Web3, ETH-Blockchain*

- Led team of 4 to develop MVP of Blockchain-based Web3 DApp facilitating tech rental using Python and React.js, ETH-Chain.
- Upgraded Decentralized-Dispute-Mechanism to reduce on-chain computation by 80%, utilizing Cartesi Rollback DApp Framework.
- Secured 3 prestigious awards: Best Utilization of Cartesi, Most Unique Concept, and 4th Place Overall for Project Implementation.

VeMove | Full Stack Engineer |*React.js, Python, Web3, ETH-Blockchain*

- Built a blockchain-powered platform on VeChain using Solidity under 36 hours to track eco-friendly user travel and issue reward tokens.
- Designed custom movement detection algorithms, earning a **$1000 travel scholarship** for innovation in sustainable mobility.
- Developed a full-stack web app with **Next.js and integrated Google Maps API** for precise user tracking and automated rewards.

SKILLS

Languages:	Java, C/C++, Python, C#, Typescript
Development:	iOS {SwiftUI}, Web {ASP.NET, RestAPI, WSDL, React.js}
Databases and Tools:	MySQL, JDBC, Git, JUnit 5, Spring Batch, XML, JSON, Linux, CoreML, CocoaPods
Cloud Services:	AWS {CDK, Lambda, SQS, S3, RDS, EC2, API-Gateway}, Firebase {Auth, Firestore}