

# Harsh Agrawal

Permanent Resident (Green Card Holder) | United States | No visa sponsorship required  
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## WORK EXPERIENCE

### JP Morgan Chase

Palo Alto, CA

Senior Software Engineer

July 2024 – present

- Contributed to migrating existing and onboarding new clients from WePay to JPMC systems, as part of a larger infrastructure consolidation effort to dissolve external platform and unify services into the JPMC ecosystem, contributing to **~\$70M in infrastructure cost savings**.
- Achieved 0% manual intervention** in KYC process by designing and developing a **GPT-4o mini powered** NAICS recommendation service (Java 21, Spring) across 2 regions with a sidecar container (Python Flask LLM wrapper) for Azure OpenAI integration automating industry classification across 1000+ codes during SMB onboarding with **100% uptime and 0% error rates**.
- Developed 20+** integration APIs coordinating release workflows for pipelines (uploading evidence and getting approval), access validation, AWS account provisioning for 60k+ projects, enabling secure, policy-compliant cloud onboarding at scale.
- Reduced manual pre-release testing by 90%** through the engineering of a custom CLI sanity-check tool, significantly accelerating the tool rollout cycle
- Built a shared AI agent orchestration repository** housing **15 specialized agent definitions** and **30 reusable skill packs**, enabling autonomous workflows for code generation, PR creation, PR review and merge, Splunk alert triage, release management, and Jira/Confluence automation across a **12-repo microservices ecosystem**.

### Sleep Number Labs

San Jose, CA

Software Engineer, Cloud Services

May 2019 – Nov 2023

- Reduced system downtime by 50% for 2 million+ IoT devices** by designing a high-scale software update mechanism and optimized reconnection protocol
- Improved API performance by 40%** through the modernization of 10+ core Order Management REST services, directly enhancing the customer purchase experience.
- Orchestrated a zero-downtime authentication migration for 2+ million users** to AWS Cognito, implementing phased migration flows while maintaining backward compatibility with legacy encrypted passwords.
- Reduced load testing costs by 75% and manual intervention by 80%** by implementing graceful shutdown and startup of a large-scale load testing service capable of simulating **6 million concurrent users** and **3 million devices** on AWS Spot instances leveraging DynamoDB and AWS MSK Kafka to maintain the microservice's state.
- Reduced build, and deployment times by 40%** by containerizing 5+ Java and Grails services using Docker, created Jenkins job to create the build and docker image, perform deploy on AWS ECS Fargate
- Reduced cost by 30%** by decomposing functionalities from monolithic application in microservices.
- Implemented comprehensive monitoring on APIs and processes using Stats, Datadog and Sumo logic.
- Collaborated cross functionally with DevOps, SRE and QA teams in investigating and resolving production issues, created troubleshooting guide contributing to improved system stability, performance, and reduction in MTTR.

## LEADERSHIP EXPERIENCE

### JP Morgan Chase

Palo Alto, CA

- Mentored 5+ Software Engineer Program (SEP) engineers** by guiding story execution, code reviews, and onboarding, supporting their transition to **full-time engineering roles**

### Sleep Number Labs

San Jose, CA

- Supervised and led a team of **3+** engineers by driving debugging sessions, daily scrums, and code reviews—accelerating knowledge transfer and ensuring delivery of high-quality, production-ready software.
- Orchestrated enterprise-wide build coordination by managing release timelines, overseeing merge processes, and enforcing clean commit practices—streamlining development workflows and improving release efficiency.
- Trained and supported 10+ engineers** in resolving production issues by walking through debugging workflows, ECS deployments, and log analysis in Sumo Logic. Authored detailed runbooks and setup guides to standardize troubleshooting and reduce recurring dependencies on direct support.

## EDUCATION AND CERTIFICATIONS

- Master of Science** in Software Engineering San Jose State University, San Jose, CA
- Bachelor of Technology, Information technology Rajasthan technical University, India
- AWS Certified Cloud Practitioner, [Credly badge issued by AWS](#)
- GitHub Foundations Certification, [Credly badge issued By Github](#)

## SKILLS

- Languages:** JAVA, Python, Go, Shell Scripting, Typescript, JavaScript, ExpressJs, NodeJs, React, C/C++

- **Databases:** Aurora, MySQL, SQL, Cassandra, DynamoDB, NoSql, MongoDB
- **Technologies/Tools:** GitHub copilot, AWS (EC2, S3, Lambda, API Gateway, Step Functions, EFS, ECS, DynamoDB, Aurora DB, IOT Core, CloudWatch, VPC, Route 53, IAM, SQS, Lambda functions, Step functions, Cognito), Kafka, Docker, Spring Boot, Jenkins, Redis, Junit, Mockito, Jersey, Grails, Google Guice, Google Protobuf, Akka, Apache Shiro, Redis.