

# Sean Coughlin

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## SUMMARY

Dynamic Software Engineer with three years of experience leading critical application redesign, delivering features to millions of customers, and improving system performance at Discover Financial Services, recognized with the 2024 President's Award (top 2.5% of employees). Specializes in full-stack development, architecting solutions processing over \$4B in annual loan originations. Holds a Master of Computer Science from UIUC.

## EXPERIENCE

### Discover Financial Services

Chicago, IL

#### *Senior Associate Software Engineer (Software Engineer II), Home Loans*

*February 2024 - Present*

- Spearheaded the complete redesign of the Discover Home Loans application portal, architecting a React/Redux single page app solution that processes over \$4 billion in annual loan originations
- Led mission-critical debt consolidation integration initiatives for the Capital One merger, including developing new 2 Spring Boot API designs and coordination with 3 vendors
- Mentored 8 new engineering hires through technical onboarding, creating structured learning paths that enabled them to deliver production features within their first sprint cycle
- Established Home Loans A/B testing infrastructure using feature flags, enabling controlled rollouts and data-driven decision-making across multiple applications
- Managed on-call rotations for 15+ microservices, achieving 30-minute mean time to resolution

#### *Associate Software Engineer (Software Engineer I), Home Loans*

*February 2023 - February 2024*

- Authored company-wide migration guide from Create React App to Vite, achieving 90% build performance improvement (saving 200+ engineering hours annually) and reaching 1,750+ developers
- Implemented unified pipeline and Playwright testing across 19 microservices, boosting reliability
- Migrated regulatory compliance Spring microservice (10,000 monthly calls) to AWS with 99.99% uptime
- Reduced regression time by ~50% through automated screenshot comparison testing across 200+ pages

#### *Associate Software Engineer (Software Engineer I), Card Acquisitions*

*February 2022 - February 2023*

- Constructed a mobile-first multi-factor authentication system for credit card applications, successfully processing 20,000+ daily users
- Developed and deployed enhanced caching system that strengthened security protocols (PCI compliance) for 650,000 monthly customers while maintaining sub-50ms response times
- Built reusable React component library slashing development time by ~30% across three engineering teams
- Engineered internal credit card processing portal that streamlined workflows for 70 customer support agents

## EDUCATION

### University of Illinois Urbana-Champaign

Champaign, IL

#### *Master of Computer Science*

*July 2024*

*Specialization in Software Engineering and Cloud Computing, GPA: 3.95*

### University of Illinois Urbana-Champaign

Champaign, IL

#### *Bachelor of Science in Computer Science, Minor in Economics, GPA: 3.88, High Honors*

*December 2021*

## ADDITIONAL INFORMATION

**Technical Skills:** React, Redux, Next.js, TypeScript, Java, Spring Boot, SQL, REST APIs, Microservices, HTML, CSS

**Cloud Engineering & DevOps:** AWS, Docker, Kubernetes, CI/CD (Jenkins), DataDog, Git, Playwright

**Certifications:** AWS Certified Cloud Practitioner, AWS Certified Developer

**Personal Projects:** Software engineering blog (85,000+ views)

**Awards:** 2024 Discover President's Award for leadership (top 2.5% of employees)

**Volunteer Experience:** Elementary school tutor for two students at Tutoring Chicago

**Interests:** Mountain climbing, hiking, rock climbing, book clubs