

Payel Das

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Professional Summary

Software Engineer with 3+ years of experience in Java, C#, .NET, AWS, and distributed microservices backed by MySQL. Skilled in event-driven architecture, REST APIs, and scalable backend systems, with a strong focus on performance, reliability, and automation. Known for clear communication, collaborative execution, and owning features end-to-end in Agile environments.

Technical Skills

Programming Languages: Java, Python, .NET, C#, JavaScript, SQL, Shell, Korn Shell, JSON, HTML, CSS, OOP

Web Technologies & Security: REST APIs, Django, IAM, AWS Secrets Manager, VPC, Subnets, Defensive Coding, OWASP

Frameworks & Libraries: .NET, React.js, Node.js, Selenium, Reusable Components, Spring Boot, Large System Architecture

Cloud & Infrastructure: AWS Cloud Architecture (S3, Lambda, EventBridge, SQS), Terraform (IAC), Kubernetes, Docker

Databases: MySQL, PostgreSQL, Amazon DynamoDB, Snowflake, NoSQL, MongoDB, Relational Database Design

Operating Systems: Windows, Linux / Unix Administration (basic shell scripting, process monitoring, file systems, log analysis)

AI Tools & Productivity Models: OpenAI (GPT-4V), Claude (Sonnet-4.5), CursorAI, GitHub Copilot, Microsoft Copilot

Observability & Monitoring: Amazon CloudWatch, Kibana (Stathub), Linux logs

Architecture: Event-driven design, Distributed systems, Microservices, Large-scale system architecture

DevOps & Collaboration Tools: CI/CD Pipelines, Azure, Jenkins, Agile/Scrum, SDLC, Git, Jira, Maven, Bitbucket

Professional Experience

Software Development Engineer II | CSG Systems International

Jan 22-Present

Software Engineer Intern -> SDE Graduate -> SDE I -> SDE II

Tech Stack - JAVA, AWS, Python, Terraform, C#, .NET, SQL, CI/CD, Linux, Shell, Azure DevOps, AI Tools, Snowflake

- Engineered scalable **microservices** in **Java** with modular REST APIs deployed across multi-region **AWS environments** using **Terraform (IaC)**, improving reliability & scalability by **45%**.
- Architected and managed multiple environments using **JAVA, AWS, and Terraform**, enabling highly scalable, **event-driven microservices**, enabling asynchronous communication, and improving system throughput & fault isolation.
- Refactored legacy WCF services into **RESTful APIs**, designing optimized **JSON-based** workflows, improving performance by **80%** and reducing maintenance overhead to **near-zero** while modernizing service architecture.
- Designed secure **production-grade AWS access patterns** using **IAM** and **Terraform**, ensuring compliant, reliable, and production-grade deployments aligned with enterprise security standards supporting **cloud-native microservices**.
- Implemented high-performance **caching layers** using **encrypted API data caching** in **DynamoDB** and AWS services, improving cost-efficiency, **API throughput**, and reducing redundant api service calls by **65%**.
- Developed **fault-tolerant** automation and **debugging** frameworks using **JAVA, Python & CloudWatch**, reducing manual recovery by **90%** and improving system observability with proactive error handling and test coverage.
- Architected **event-driven data pipelines** using AWS messaging (**SQS/EventBridge**), enabling **real-time ingestion** and distributed activity reporting for large-scale product experiences and scalable **message decoupling** across microservices.
- Automated **SSL certificate lifecycle** with **C#/.NET** to eliminate manual renewal effort and strengthen API security, aligning with defensive coding / secure engineering principles.
- Improved backend **response reliability and testability** by redesigning structured JSON outputs in C# and .NET, **reducing client-reported defects by 20%** and accelerating debugging cycles.
- Enhanced observability, error reporting, debugging, and monitoring using **CloudWatch, Kibana, and Linux logs**, ensuring reliable **production-grade deployments** and faster issue isolation.
- Owned **feature delivery end-to-end**, requirements, design, coding, automated testing, deployment, performance validation & production support, ensuring reliable releases and zero-regression rollouts.
- Mentored** peers on AWS, Terraform, and CI/CD, **collaborated** with **cross-functional teams** to streamline deployment workflows, accelerate release velocity, and enable reliable, scalable delivery across distributed microservices.

Software Engineer Intern | HighRadius

May 21-Jan 22

Tech Stack - JAVA, Python, Selenium, Regex, SQL, React.js, Node.js, HTML, CSS, ML, Jenkins, GitHub, JavaScript

- Built **automated** data pipelines using **Java, Selenium, Regex, and SQL** to extract, validate, and store structured datasets, eliminating **60%** manual work and **improving throughput and data accuracy by 40%**.

Education

Bachelor of Technology (B.Tech) in Information Technology - CGPA: 9.31 / 10

Jul 18-Jul 22

Kalinga Institute of Industrial Technology (KIIT University), Bhubaneswar

Projects

Smart Payment Prediction Platform – Architected a **scalable SaaS analytics platform** using Java/Spring Boot, React.js, Python, and REST APIs, integrating **ML-driven forecasting**, modular backend, and **reusable front-end components** to deliver **60% higher prediction accuracy**, improving data processing, and streamlined **end-to-end user experience**.

Achievements

- Awarded the **Leap Trailblazer Award (2023)** for outstanding professional growth and innovation in software engineering, recognizing excellence in problem-solving, continuous learning, and embodying CSG's guiding principles.
- Certificate in **Amazon Web Services Cloud Practitioner** (Nov 2025)
- Google Cloud Badges: **Prompt Design in Vertex AI** (Nov 2025)