Aniket Pathak

15 Years | (404) 861-2144 | aniketpathak1@gmail.com | [LinkedIn](http://www.linkedin.com/in/aniket-pathak-16721015) |

|  |  |
| --- | --- |
| EDUCATION  **MS in Computer Science Eng.**  Grand Canyon University  2020 – 2022 | Arizona, USA  **BE in Electronics Eng.**  West Bengal University Tech  2003 – 2007 | Kolkata, INDIA  TECH SKILLS  **Programming Languages**  Java | Kotlin | Scala  **Utilities & Frameworks**  Spring Boot | Vertx | Ktor |  Rx-Java | ReactJs | Angular |  Apache Spark | Hive | Kafka |  Spring | Junit | Mockito |  CICD | Jenkin | GitHub | Stash  **Cloud Technologies**  Amazon Web Services (AWS) |  Red Hat OpenShift | Docker l CDK  **Database Technologies**  DynamoDb | Couchbase | MongoDb |  Casandra | S3 | Sql/NoSql | Oracle | MySq  **Security and Identity**  Federated IDToken | OpenID  Connect | JWE, JWS, JWT | Cryptography  **Certifications**  SCWCD – 2013 | SCJP - 2013 | WORK EXPERIENCE  **Software Dev Engineer II | Amazon AWS**  FTE | July 2022 – Present  REMOTE (Denver, CO)  **Sr. Software Engineer | American Express**  FTE | Oct 2015 – July 2022  Phoenix, AZ  **Java Developer | JPMorgan Chase**  Consultant | Feb 2015 – Oct 2015  INDIA and USA  **Java Developer | First Data**  Consultant | Sept 2010 – Jan 2015  INDIA and USA  **Developer | Hsbc Software Dev.**  FTE | Jun 2008 – Sept 2010  INDIA |

CURRENT PROJECT

Employer: Amazon AWS

Role: Lead System Development Engineer

Duration: July 2022 – Present

**AWS – Config Services**

AWS Config is suit of services which continually assess, monitor, and record resource configuration changes to simplify change management. The config services have the capability to audit and evaluate compliance of your resource configurations with your organization’s policies on a continual basis. It also simplifies operational troubleshooting by correlating configuration changes to events in your account.

Job duties

* + Lead development activities on various services under AWS config.
  + Analyze and mitigate the platform level automations gaps in region build.
  + Continuously monitor the central region build automation process and help service team to automate their deployment.
  + Help service teams on their on-call issues by providing industry best practices under the influence of amazon leadership principle.
  + Provide on-call support for common services as both primary and secondary.

Tech stack

Backend Java 11, Completable Futures, Lambda Expression, Simple Storage Service (S3), SQS, SNS, Dynamo DB, NoSql, Docker, Kubernetes, Microservices, Restful APIs, AWS API gateways, Config services, CloudWatch, Cloud formation template, Cloud Dev Kit (CDK)

PAST AMEX PROJECTS

Employer: American Express

Role: Lead Technical Architect

Duration: Oct 2015 to July 2022

**Click to Pay (CTP), Secure Remote Commerce (SRC)**

[Click to Pay](https://network.americanexpress.com/globalnetwork/products-and-services/acceptance/click-to-pay-with-american-express/) is a product from American Express with collaboration with other major credit card networks (Visa, Mastercard, discover... etc.) to form a consortium of payment instruments using a secure checkout button called ClickToPay on various merchant’s website. All the payment networks including Amex follows the common guidelines published by [EMVCo](https://www.emvco.com/emv_insights_post/introducing-the-click-to-pay-icon/). Amex acts as SRC system which is responsible for recognizing the customer’s browser if it is known to Amex previously and provide list of eligible payment cards for that user profile. If user selects an Amex card, then he/she will be taken to Amex specific checkout experience after finishing appropriate risk assessment. User may want to remember themselves on Amex page so that next time they don’t need to enter any user information.

Below were my job duties

* + Led end to end integration between SRCi (external partners) and Amex as an SRC system
  + Developed Amex SRC system specification document under the guidelines of EMVCo SRC specification V0.9
  + Worked on developing core APIs defined by EMVCo for SRC systems.
  + Participated in database design and schema modelling.
  + Helped QA team to define SRC system specific testcases.
  + Regular code review and PR merge activity

Tech Stack

* + Backend Java 11, Kotlin 1.4, Vertx, RxJava, Completable Futures, Lambda Expression, Couchbase, NoSql, RedHat OpenShift Cloud Provider, Docker, Kubernetes, Microservices, Restful APIs, OpenId connect. Kafka producer and consumer
  + API Security OpenID Connect, IDToken (JWT) for user information.
  + Content Security Json Web Encryption (JWE), Json Web Signature
  + Key exchange and rotation Well-Known URL using JWK public key formatting
  + Reporting: Kafka producer, consumer and Spark Streaming
  + Realtime MonitoringELF dashboard

**Amex Card on File (Push/Pull provisioning)**

Amex Card on File ([COF](https://network.americanexpress.com/globalnetwork/tokenization/dam/jcr:88a1a68c-e469-4442-b433-0c743472da00/American%20Express%20Card%20on%20File%20Tokenization%20Overview.pdf)) is a feature on Amex enterprise application (mobile, web) created for industry leading payment and ecommerce partners like Paypal, Stripe, Amazon, Google.

I am working as a lead technical architect for backend services and below are the duties and responsibilities

* + Leading build, design, development, and architecture for entire Amex Card on File initiative.
  + Leading and mentoring a mid-size team of 10-12 junior to senior developers and QA testers located in USA and INDIA
  + Designed Amex Card-On-File spec and partner integration documents.

Tech Stack

* + BackendJava 11, Kotlin 1.4, Ktor, Vertx, RxJava, Completable Futures, Lambda Expression, Couchbase NoSql, RedHat OpenShift Cloud, Docker, Kubernetes, Microservices, Restful APIs, Kafka producer and consumer
  + API Security oAuth 2.0 with AuthCode model, AccessToken and RefreshToken, OpenId Connect, IDToken (JWT) for user information.
  + Content Security Json Web Encryption (JWE), Json Web Signature
  + Data and Reporting MapR Hadoop Cluster, Spark 2.1 and Hive 1.3, Kafka Streaming, ShellScript
  + Realtime Monitoring ELF dashboard and Splunk indexes.

**Digital Wallets (Apple Pay, Google Pay, Samsung Pay)**

Provisioning and Tokenization are the enterprise level projects to support digital provisioning and virtualizing the physical credit card to digital cards (tokenization) on major digital wallet providers like Apple, Samsung, Google etc.

Card members can provision their Amex card into various hardware platform like Apple, Samsung and later they can use respective digital wallets like apple pay, Samsung pay to purchase various products from supported merchant’s store.

In the background Amex stores the card information digitally and tokenize the actual plastic card.

Tech Stack

* + Backend Java 1.6, J2EE, Jboss 7, IBM WebSphere 8, IBM MQ, SOAP Services, XML, Javascript, HTML
  + Databases IBM DB2, Oracle 11G
  + Monitoring: Splunk dashboard

**Platform Modernization**

Platform modernization was an internal initiative to migrate the backend monolithic services deployed in JBoss, WebSphere to microservice based architecture using cloud-based systems.

We have also migrated backed database system from DB2 to NoSql based datastore like Redis (memory cache) and Couchbase NoSql DB.

We migrated from Java 6 to Java 8 asynchronous practices. We have also moved from blocking system to non-blocking reactive components using Rx-Java.

Tech Stack

* + Modernize Backend Java 8, Vertx, RxJava, Completable Futures, Lambda Expression, Couchbase NoSql, RedHat OpenShift Cloud, Docker, Kubernetes, Microservices, Restful APIs, PaaS, IaaS
  + Legacy Backend IBM WebSphere, IBM DB2, Oracle 11G, IBM MQ, SOAP Services
  + Content Security Json Web Encryption (JWE), Json Web Signature
  + Realtime Monitoring Log as a service (LaaS), splunk dashboard

**Digital Payment Enterprise Data Pipelining**

Digital payment enterprise data pipelining was an internal project to build the enterprise customer and various card tokenization data to the enterprise Hadoop cluster (internally called cornerstone) for internal auditing and reporting. In this project I lead the backend API related development work and a small team of bigdata engineers to build the integration on semi real-time data push from various service layers to that data lake.

Tech Stack

* + Backend Java 8, Scala, Spark 2.1 Scala SDK, Java Completable Futures, Lambda Expression, Kafka producer and consumer
  + Data and Reporting Kafka consumer and Spark Streaming, Apache hive, Apache Pig, hive SQL, Kognitio, Jethro
  + API Security Basic HTTPS
  + Content Security EDPP Voltage

PROOF OF CONCEPTS

**Smart Event (Amazon Alexa Skillset)**

Worked on developing an Amazon Alexa skill for one of payment usecase where card member can search nearby events and can make payments using existing digital payment tokenization and authorization rails.

**Trusted Platform Module (TPM 2.0)**

I have also worked on simulating the hardware security using Trusted Platform Module (TPM 2.0, TSS) for secure payment protocol.

The proof of concept got the first-place form internal garage initiatives.

**iBeacon Based Offer Routing Platform (BLE 2.0)**

Worked on a POC for an iBeacon (BLE) based offer routing platform for Amex customers and built an iOS app to support the above offer routing platform for US based Amex card members.

PAST PROJECTS IN OTHER COMPANIES

**Employer: Cognizant Technology Solution**

**Client: Firstdata, USA**

**Atlanta, GA, USA Jan 2014 – Oct 2015**

**Role: Technology Lead**

Virtual Terminal OR LinkPoint is a hosted application which can turn any Internet connected PC into a Point of Sale (POC) device. The Virtual Terminal application also allows a merchant to monitor and manage their accounts. Beside this product Firstdata also owned other Point Of Sale software but in different forms, some are hosted web services and some are standalone port listeners. Also LinkPoint is connected with several customer care facing tools which are mainly used to monitor real-time authorization traffic as well as settlement data.

**Responsibilities:**

* Analysis, Design, Development, Testing and maintenance of the system.
* Created overall Design for the application including component, class and sequence diagrams. Also, created design document.
* Arrangement of daily and weekly discussion with offshore counterpart.
* Weekly project update to Client.
* Developed application using **Java 1.6, XML/XSL, JBoss 4.2/Jboss 7, web services, Oracle database and PL/SQL, Spring, Hibernate**.
* Designed and Developed application based on various design patterns like **Singleton, Factory pattern,** **Delegate** etc.
* Involved in writing the functional test cases, test data request, unit and integration tests for the system.
* Involved in writing code in **Java** with features like Collections, Exception Handling, multithreading.
* Worked on Unix environment to deploy the application, test the application and install the application.
* Involved in writing **Apache Ant** scripts for building and deploying the code.
* Involved in the code review of the project.
* Project schedule tracking and delivery of the module.
* Role is hands-on Technical Project Management and Lead.
* Worked on developing Enterprise-distributed applications and Test Driven Development with **JUnit**
* Experience in developing database solutions with **Oracle 10g** and involved in writing **PL/SQL** and **SQL queries**
* Worked in Agile methodology
* Implemented **Web Application Security** using **AES 256 Bit Encryption** in a public facing external portal of Firstdata.
* Implemented the **HTTP** **Session management strategy** in a public portal using J2EE framework.

**Environment:**

Java 6, J2EE Design Patterns, OOAD, SOAP Web-services, XML, JBoss 7, Eclipse, UML, Apache Ant, JUnit, Agile methodology, Spring, Hibernate, AES-256, Oracle 11G, SVN and Harvest, WINDOWS 7, UNIX (SUSE)

**Employer: Cognizant Technology Solution**

**Client: Firstdata, INDIA**

**Kolkata, WB, India Nov 2011 – Dec 2014**

**Role: Module Lead**

Virtual Terminal OR LinkPoint is a hosted application which can turn any Internet connected PC into a Point of Sale device. The Virtual Terminal application also allows a merchant to monitor and manage their accounts. Beside this product Firstdata also owned other Point of Sale software but in different forms, some are hosted web services and some are standalone port listeners. Also, LinkPoint is connected with several customer care facing tools which are mainly used to monitor real-time authorization traffic as well as settlement data.

**Responsibilities:**

* Developed application using **Java 1.6, XML/XSL, JBoss 4.2, web services, Oracle database and PL/SQL, Spring, Hibernate**.
* Designed and Developed application based on various design patterns like **Singleton, Factory pattern,** **Delegate** etc.
* Involved in writing the functional test cases, test data request, unit and integration tests for the system.
* Involved in writing code in **Java** with features like Collections, Exception Handling, multithreading.
* Worked on Unix environment to deploy the application, test the application and install the application.
* Involved in writing **Apache Ant** scripts for building and deploying the code.
* Involved in the code review of the project.
* Project schedule tracking and delivery of the module.
* Role is hands-on Technical Project Management and Lead.
* Worked on developing Enterprise-distributed applications and Test Driven Development with **JUnit**
* Experience in developing database solutions with **Oracle 10g** and involved in writing **PL/SQL** and **SQL queries**
* Weekly status call with Onsite Team.

**Environment:**

Java 6, J2EE Design Patterns, OOAD, SOAP Web-services, XML, JBoss 7, Eclipse, UML, Apache Ant, JUnit, Agile methodology, Spring, Hibernate, AES-256, Oracle 11G, SVN and Harvest. WINDOWS 7, UNIX (SUSE)

**Employer: Cognizant Technology Solution**

**Client: JP Morgan Chase, INDIA**

**Pune, MH, India Sep 2010 – Oct 2011**

**Role: Sr. Java Developer**

Strategic client on boarding tool (SCOT) is a client facing web application where our client can board their new customers for investment banking. This software has another part where client’s investors can set their investments virtually and can apply rules those are based on current market criteria. This tool also automates process on a regular interval and then able to generate various kind of reports.

**Responsibilities:**

* Requirement gathering, Analysis, Design, Development, Testing and maintenance of the system.
* Created Design document for the application.
* Developed application using **Java 1.6, WebSphere 5, web services, Oracle database and PL/SQL, Spring and Struts, Hibernate**.
* Designed and Developed application based on various design patterns like **Singleton, Factory pattern,** **front controller** etc.
* Responsible for performance tuning of the system.
* Involved in writing the functional test cases, test data request, unit and integration tests for the system.
* Involved in writing code in **Java** with features like Collections and Exception Handling and multithreading.
* Worked on Unix environment to deploy the application, test the application and install the application.
* Involved in writing **maven** scripts for building and deploying the code.
* Involved in the code review of the project.
* Project schedule tracking and delivery of the module.

**Environment:**

Java 1.6, J2EE Design Patterns, OOAD, Servlets, Web-services, XML, Spring framework, Eclipse, SVN, UML, Maven, JUnit, WINDOWS 7, UNIX (SUSE).

**Employer: HSBC Software Development India Pvt. Ltd.**

**Client: HSBC, INDIA**

**Pune, MH, India Jun 2008 – Sep 2010**

**Role: Java Developer**

Program Information Center is web-based software developed on J2EE architecture. In this software users (learner, manager, admin) can upload different program schedule online. They can enroll their names for different courses under a program. Reporting is another part of this software where user can generate participation reports in different formats.

**Responsibilities:**

* Requirement gathering, Analysis, Design, Development, Testing and maintenance of the system.
* Created Design document for the application.
* Created the technical specifications and low-level design of the Use Cases.
* Designed and developed application using Core Java, J2EE (JSP, Servlets), Spring and Oracle.
* Designed and Developed application based on various design patterns like **Session Facade, Service Locator, Business Delegate, DAO, Singleton, Factory pattern,** **front controller, factory pattern** etc.
* Involved in writing multithreaded code in **Java** with other Java features like Collections and Exception Handling.
* Developed various database objects like **stored procedure**, **triggers, tables, views** etc.
* Used object relational Persistence framework (JPA) to persist the business data in the database.
* Designed and developed various web services using the **SOAP API**.
* Responsible for performance tuning of the system.
* Written the unit, functional and integration tests for the system.
* Involved in writing APACHE **ANT** scripts for building and deploying the code.
* Involved in the code review of the project.
* Project schedule tracking and delivery of the module.

**Environment:**

Java, J2EE, Design patterns, OOAD, JSP, Servlets, EJB, Web-services (SOAP), XML, XML Schema, JMS, Apache Tomcat, BEA Web Logic, SQL, PL-SQL, Oracle, Eclipse, UML, Ant and Agile methodology, JUnit, SVN.

**Employer: Future Engineers**

**Client: JOJA Surgical.**

**Kolkata, WB, India Jul 2007 – Jun 2008**

**Role: Java Developer**

Joja Surgical is an online shopping center for surgical instruments. User can view, purchase instruments online via credit card. Manual order facility also present in case user does not have credit card. For online purchase a third-party software system was called through Web Service. Settlement was done manually by requesting third party online payment facilitator.

**Responsibilities:**

* Involved in project estimation.
* Object-orientated analysis/object-orientated design of the system.
* Organized meetings and presentations for various design components, gathered requirements.
* Designed and developed Web-tier using **Struts framework**.
* Used most common Design patterns like **Intercepting Filters**, **Business Delegate**, **DAO, Singleton and Factory Pattern.**
* Designed and developed the Data Access framework.
* Developed the database schema design for holding SIF messages and related data.
* Involved in the code review of the project.
* **Unit testing** and **integration testing** of the system.
* Prepared the coding standards document and developed Assent-PMD rules to enforce them.

**Environment:**

Java 5, J2EE Design patterns, UML, OOD, J2EE, JSP, Servlets, HTML, JNDI, taglib, Spring, JSTL, XML Parsers (SAX, DOM, JDOM), XMLBeans, Tomcat, Eclipse, Ant, JUnit, MySQL.

PERSONAL INFORMATION

## Date of birth: 12/25/1984

Native Location: Kolkata, WB, INDIA

## 

**INTERESTS**

Designing and building remote controlled airplanes and quadcopter, home automation, microcontroller-based fun projects, IoT experiments, adaptive learning.

Link to my youtube channel: [**Makers Mind**](https://www.youtube.com/channel/UCQmASvr2vhQfBoSRm1ug8MA)