Tiffany Timbric
Broomfield, Colorado 80023

Summary
Senior enterprise backend software developer passionate about code, both functional and imperative: I write mission-critical system backends across many domains, financial, transportation, telecommunications, e-commerce, defense, etc. I started at Sun Microsystems, Inc. assisting their top clients in implementation of JEE patterns with code quality. More recently I used AWS, Serverless, Spring, Network Bulkheads, Java Optional, Reactive eXtensions, NoSQL to design and author reliable Java systems deployed on AWS.

Skills / Experience
Java, Kotlin, Scala, Bash + Linux (Postman, Curl, jq, tmux), Spring Boot (REST, JSON), AWS (S3, SQS, Lambda, Pipelines, EC2), Reactive eXtensions (RxJava), Bulkheads (Hystrix), JEE Design Patterns, Microservices, ETL, SQL (Oracle, PostgreSQL, Maria/MySQL), NoSQL (Cassandra, MongoDB), Messaging (Kafka, JMS, SQS, Rabbit, Active MQ), TDD (JUnit, Mockito, Wiremock, Gerkin, Cucumber), Encryption (SSH, H2-MAC, NTRU, XOR), RPC TCP UDP Networking (Wireshark, Protobuf, gRPC, Redis, Finagle, Wireshark, RMI, CORBA), Git, BDD, DDD, GitHub, Bitbucket, Nexus, Artifactory, Multi-factor Auth (OAUTH), Single Sign On, OSGi, Jenkins, Bamboo, Atlassian Tools, …

Software Architecture
- Enterprise Architecture – Modeling & Design: *https://sparxsystems.com*
- Hexagonal Architecture – In Adapters → In Ports | Service → Out Port | Out Adapters

Code Examples
- Finite State Machine: *https://github.com/chadwickboggs/fsm*
- Cryptography: *https://github.com/chadwickboggs/crypto*
- Spring Boot: *https://github.com/chadwickboggs/xchange*

Education, Certifications, Patents
- Bachelor of Science, Computer Science, University of Colorado, 1998
- Electrical Engineering, U.S.M.A. at West Point (attended)
- Sun Certified Java Developer, Sun Certified Java Programmer
- AWS Certified Developer (in progress)
- Patent: #6907423 (Search engine interface and method of controlling client searches)

Professional Experience

Marriott International, Denver, CO   12/2024 – 10/2025
Senior Software Developer
- Platform Core team member. Author of their Universal StarterKit application generator:
  - Inbound Adapters: *REST, Kakfa Subcriber, GraphQL, gRPC*
  - Outbound Adapters: *REST, Streaming REST, Kakfa Publisher, GraphQL, Elasticache (Redis), MongoDB, PostgreSQL*
- Author their Hexagonal Architecture Sample Application.
- Author of their Platform Cache Library:
  - Strategies: *Cache-Aside, Read-Through, Write-Around, Write-Back, Write-Through*
  - Eviction Policies: *LRU, LFU, TTL*
  - Levels: *1 (memory), 2 (remote/distributed)*
  - Providers: *Memory, Redis*
- Author of their Streaming REST Client Platform Library – Unlimited transfer size.
- Features: Reactive eXtensions, REST and command-line inbound adapters, REST, JPA, r2dbc Spring Data, JSON serialization/deserialization, filesystem storage, and other outbound adapters.
- Technologies: AWS S3, Kubernetes, Lombok, immutables.org, REST, JSON + FasterXML Jackson, HttpClient, Java 21, Junit, Maven.

Amtrak, Denver, CO   2/2023 – 4/2024
Senior Software Developer
- Primary code / author (30k+ lines of code) of their AWS rewrite of their entire outbound email system for customer purchases including trip information and sales receipts. Sales receipts and trip information listings for all Amtrak trips, with add-ons, and purchase types, across all Amtrak stations, passenger classes, and third-party carriers.

- Features included the handling of and processing scale for all Amtrak customer purchases, the publishing of business metric, system metric for observability, error / failure alerting, meaningful trace, debug, info, warn, and error logging with security and PII protection.
- Technologies included AWS (Cloud Formation, Lambda, Event Bridge, SQS, S3), immutables.org Java Beans, REST, JSON + FasterXML Jackson, HttpClient, environment specific configuration, environment variables, Java 11, Maven.

GHX, Louisville, CO 6/2022 – 1/2023
Senior Software Engineer
- Lead team authoring software connecting hospital ERP and medical equipment purchasing systems to GHX.
- Used AWS EC2, SQS, S3, and Lambdas, Java, Oracle.
- Web Services, FTP, sFTP, HTTP(S), JSON serialization/deserialization, SQL.
- Deployed in 100's of customer data centers, two-week release cadence w/ prod deploys.

PayPal, Denver, CO 2/2020 – 5/2022
Software Developer
- Implemented direct deposit signup services in Spring Boot.
- Implemented account bank migrations, bank change, for all PayPal accounts in Spring Batch.
- Maintained and implemented feature enhancements to a batch merchant report generation system.

Arris/Commscope, Denver, CO 1/2019 – 10/2019
Software Engineer
- Updated the video catalog and merchandising backend originally authored by Motorola for Bouygues Telecom, France.
- Used Java EE, WildFly, GlassFish, WebSphere, REST, Wiremock, Mockito, Postman, Wireshark.

Comcast, Corp., Denver CO 1/2018 – 4/2018
Software Engineer
- Updated one Java system to Docker/Kubernetes, Java 11, Cucumber, Reactive Extensions, Git.

Charter Communications, Denver, CO 1/2016 – 12/2017
Software Engineer,
- Maintained 100+ Java micro-services, added new micro-services all in Amazon Web Services.
- Used Linux, Netflix OSS, Cassandra NoSQL, Reactive Extensions, Java 8, SQS, SNS, S3, EC2, Active MQ, Mongo, Git, Spring.

Comcast, Corp., Denver, CO 9/2014 – 2/2015
Software Engineer,
- Designed and built "RxJDBC," a Reactive Extension, RabbitMQ Message Oriented Middleware (MOM) front to an Oracle database as part of the Resiliency Project, Java, Git.

Tendril, Inc., Boulder, CO 2/2014 – 5/2014
Software Engineer
- Back-end dev-ops programmer on SOA Finagle+Protobuf+Cloud Java/Scala micro-services.
- Used Atlassian, Cucumber BDD, PostgreSQL, Hadoop, Hibernate, Scala, Intelli-J IDEA, Git.

JDA Software Group, Inc. Denver, CO 2/2010 – 12/2013
Senior Software Engineer
- Project Lead for integration of iOS, Android mobile task system with legacy web-based system
- Tasks roughly is E-mail messages enhanced for distributing and tracking business actions.
- Customers include Fortune-500 companies. Scalability, performance was significant.
- Technologies: OSGi, Gradle, Git, and SQL Server, Git, Mercurial, Subversion, CVS.
- Extended and maintained legacy J2EE web-based task management system.

Independent Consultant, Denver, CO 1/2008 – 12/2009
Software Developer

- Extended and maintained a JEE merchandise inventory system
- Used MySQL DB, Java, Spring.
- Customers included Bell South, e-Bay, Frontier Airlines, AmDocs, Etilize, Skyway

Evolution Hosting, Inc. Louisville, CO   **2/2007 – 12/2007**
Chief Operation Officer
- Viasest data center Linux servers for J2EE applications with Java management software.
- Customers included Crocks, Wells Fargo, Hunter Douglass, among others.
- Used J2EE, Linux, VMware, Xen (Linux virtual machines), Amazon Web Services, MySQL

Independent Consultant, Denver, CO   **2/2004 – 1/2007**
Software Developer
- Created NIO client with could reach 100 Mb/s scale message rates.
- Created new web sites, Java.
- Consulted at eBay, Frontier Airlines, Bell South, Skyway representing Sun Microsystems, Inc.

Packexpo, Inc. Fairfax, VA   **2/2002 – 2/2004**
Software Architect
- Created a reporting system for packaging advertising services.
- Maintained packaging advertising web site.
- Technologies: J-Boss, Linux, MySQL, Intelli-J, BeanShell, JSP, Lzop'ed data stream for large DB backups over NFS mounts, Java, Groovy.

Sun Microsystems, Inc. Broomfield, CO   **2/1999 – 1/2002**
Java Consulting,
- Represented Sun for RUP, UP, SunTone, OOA&D mentoring and J2EE coding, Java, SCCS, Teamware, RCS, Solaris, Java.
- Consulted at Citigroup, Vanguard Fiduciary Trust, Credit Suisse.
- Performed an Architecture Assessment recommending SOA and JEE which later was followed as advised.

Sun Microsystems, Inc. Broomfield, CO   **4/1998 – 1/1999**
Java Developer
- Created web-based and Swing computer assisted training systems.
- Improved the performance of our custom pseudo-recursive-descent parser template engine by adding caching of parser
- results and by altering the parsing algorithm.