Ashley Hendrickson | Java Spring Boot Engineer

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Home Depot | February 2024 - February 2025 (Contracted)

Java Spring Boot Engineer

Transportation Tender and Tracking team

Manages a suite of applications and processes to optimize transportation planning and execution around carrier sourcing selection (lower costs and improved service) and tracking of shipment status forecasting, milestones and confirmations (enhance speed and visibility of shipments).

- Suite of Spring boot microservices deployed across GCP and PCF platforms using Oracle DB and Postgres database.
- Legacy Applications like Transportation Management Service (TMS) were deployed and managed by PCF.
- Carrier's authenticated using oauth2 and were authorized to call specific endpoints using there LDAP roles managed by vantage service management
- Services used Rest API's, schedulers, publishers and subscribers through out the project's. Just a few examples:
  - Delivery Network Administration (DNA) would send us xlsx file with DNA Lanes that needed to be uploaded via Rest API. Once a day the schedular would trigger an create those lanes in a postgres table. If Any of the lanes failed they would be saved as an excel file with all the failing lanes in postgres, which could be downloaded and analyzed by the DNA team via Rest API.
  - Merchandise and Pricing Team (MAC) would send HDTCarrierGateway a tender response message via rest API with notes, response status and the shipment id. HDTCarrierGateway would publish that on a topic and HDTTender would consume that message and save the message in postgres. The publisher tried three times to publish to the topic and if all three times failed it would publish to the DLQ
- Used GitHub as source control and for CI/CD pipelines, deployed to GCP workloads.
- Utilized Google logs and looker to debug issues.
- Monitoring was done Prometheus and google health checks, verify the pod was up and running
- Alertings were sent using google alerting and siren
- upgrade mulitple legacy microservices service from java 8 to java 21.
- migraded multiple services from jenkins to github actions
- I lead the effort to migrate multiple services from Tender and tracking to Carrier Invoice Management (CIM) team. Working with CIM and SRE engineers. The changes required terraform, configmap and migrating from oracle db to alloydb, GLBC configuration and multiple service request. I documented the steps in confluence and did a KT with my team on the process.
- Wrote design document and went over technical designs with managers in miro.

Acquired Skills

- Cloud
  - gcp
  - pcf
  - kubernetes
  - helm
  - terriaform
- Testing
  - mockito - unit test
  - swagger
- Monitoring
  - prometheus
  - siren
  - google alerts
- Work Environment
  - TDD (test driven development)
  - jira
  - agile
  - github actions

- production deployment (service now)
  - Backend tools
    - pub/subs
    - spring boot (Java)
    - gradle
    - micro services
  - Databases
    - Oracle SQL (Relational DB)
    - postgresql (Relational DB)
    - alloydb (Relational DB)

Kohls, Menomonee Falls WI | June 2022 - February 2024

Java Spring Boot Engineer

IFA Inventory Forecast Allocation team

Replacing third party forecasting and inventory application's with much better systems that Kohl's can tailor to its specific needs. When IFA receives a purchase order from a analysis our system takes that purchase order, and sends it through a forecasting system to compute the optimal way to break apart, and allocate that order to stores where it will sell best. Our system can break orders down to the size level and allocate merchandise of size small, to stores with a small size bias for that specific item saving the store alot.

- Project used Spring Boot Microservices with REST APIs which were used to optimize and forecast sales of purchase orders, given specific configurations and constraints provided by the vendors and distribution centers.
- Project also had a batch service that would run daily synchronizing DC Split, DC Store, and direct-to-store orders. Our services would receive purchase orders, format, and validate them before sending them to a Kafka topic which would be consumed by an optimization service which would optimize the purchase orders for the SKU net forecasting model.
- Used Gitlab as the source control and for our CI/CD pipeline, deployed it to OpenShift we used a KADO model which is similar to Git workflow.
- Utilized Dynatrace to debug and monitor deployments as well as debug issues that occurred and gathered metrics.
- Led the initiative to migrate allocation merchandise hierarchy service away from Merchandise Department Manager service which we were retiring.
- Wrote design document and went over it with manager and pair programming partner.

OLM Order Life cycle Management team

Replacing third party applications that the store depends on. Tracking "buy online pick up in store" BOPUS orders and, buy online ship to store BOSS orders, OLM tracks orders in the store fulfillment center and orders in the store that had to be shipped to another store. We also helped with building out the software associates use in there zebra device to find orders in the store.

- Project used Spring Boot Microservices with REST APIs which were used to track orders from the distribution centers to the store. Orders would be updated as they left the store fulfillment center.
- I worked on marking orders as lost, updating orders, printing order labels, and sending E-mail order confirmations.
- Used Gitlab as the source control and for our CI/CD pipeline, deployed to OpenShift using a KADO model (similar to git workflow).
- Utilized Dynatrace to debug and monitor deployments and debug issues that occurred. Also used it to gather metrics.
- During migration, I designed a way to compare sterling orders with OLM orders by adding all expected outputs to a JSON file. The validator service would run once a day which would validate the expected sterling results and equal to our OLM result. The unexpected results would be saved to a Mongo table.

Acquired Skills

- Cloud
  - gcp
  - openshift
  - kubernetes
  - helm

- Testing
  - cucumber - automated integration test
  - mockito - unit test
  - swagger
- Monitoring
  - dynatrace
  - splunk
- Work Environment
  - pair programming
  - TDD (test driven development)
  - jira
  - agile
  - pipeline gitlab
  - production deployment (service now)
- Backend tools
  - gradle
  - maven
  - kafka, zoo keeper and schema registries
  - nodejs
  - spring batch
  - spring boot (Java)
  - micro services
- Databases
  - Oracle SQL (Relational DB)
  - postgresql (Relational DB)
  - Mongo DB (Non Relational DB)

Ford, Dearborn MI | July 2021 - May 2022 (Contracted)

Java Spring Boot Engineer

Global Ordering and Logistics team

Migrate and maintain legacy systems. The project I worked on was JMC to Mexico, helping to connect dealers in mexico with a chines manufacturing plant JMC. One of the micro services would validate PCVs (Personal Commercial Vehicle), with constraints such as a blue interior trim and blue exterior trim and specific engine before returning a list of PCVs to choose from.

Acquired Skills

- Cloud
  - pivotal cloud foundry
- Monitoring
  - splunk
- Work Environment
  - TDD (test driven development)
  - agile
  - git workflow
  - pipeline gitlab
- Backend tools
  - RabbitMQ
  - spring boot (Java)
  - micro services
  - rabbit mq
- Databases
  - Oracle SQL (Relational DB)

Initech global , Grand Rapids, MI | May 2019 - April 2021

Full stack developer

APES

Apes was my first client project made for Amway, this project was a intenral application for monitor and add financial documentation. I helped migrate from the old application that used a j2ee framework to a Angular front end and a spring boot backend with multi modularized maven application to help scale and maintain the application. I also integrated a few AWS internal lambdas for some of the batch processes using AWS cdk.

MyInitech

MyInitech was my first non-intern internal project, it was a all purpose tool used by the company to monitor and organize internal projects, staff, timesheets, vacation days, project documents, and more. The old application used plain javascript and was hosted with JSP. I helped migrate the front end to a new Angular front end. I also fixed existing bugs on the older monolithic spring boot backend.

HOA

HOA was my first project as a intern, this application was a HomeOwners Association application that could be used by the landlord to keep track of tenants whether they paid or not, if they had complaints, and what properties are being occupied as well as damages. I used Angular to help develop the front end and spring for the backend.

Acquired Skills

- Cloud
  - aws lambda cdk
  - sqs
- front end
  - material ui, material icons,
  - bootstrap, flexbox, grid layout
  - Angular Typescript
- back end
  - multi-module maven project
  - spring boot (Java)
  - testing and auto-generating rest api with swagger
- Work Environment
  - TDD (test driven development)
  - agile
  - git workflow
  - pipeline gitlab
  - trello task manager
  - agile development
- Database
  - postgresql

Education

Grand Valley State University, *Allendale MI Bachelor of Computer Science* | April 2020

About Me

I have passion for bitcoin I have implemented a bitcoin wallet using in [rust](). I can unlock and lock UTXO using P2TR, P2WPKH and P2PKH I also can connect to the lightning network.

links

- linkedin https://www.linkedin.com/in/ashley-hendrickson-92746b172/