

Summer 2024 J.B. Hunt Internship

Justin Ong



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Justin Ong

About me



International student from Selangor, Malaysia

Senior @ SAU

Computer Science: Cyber Security and Privacy Option



J.B. Hunt Transport Services Inc.

Transportation and Logistics Company

- Founded in 1961
- NASDAQ-100 company in 2017
- Partners with Walmart, Google, BNSF railroads...



Internship Program

Summer 2024



Internship Program

Summer 2024

- 2-month full-time, paid internship
- 62 App Dev interns (198 total interns)
- Intern office @ Fayetteville, AR •



Internship Work

What we did

- Assigned to and worked with full-time teams
- Interns worked on the actual product
- Multiple stories throughout 2-week sprints



Work Relevance

Why our work matters

Maintaining and modernizing a shipment application

- Adoption of new APIs
 - Cleanup of legacy code
- 

Work Relevance

Why our work matters

SHIPPER APP

BOOKING
FUNCTION

ACCOUNTS
FUNCTION

Work Relevance

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Work Relevance

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WHERE OUR WORK COMES IN

Work Relevance

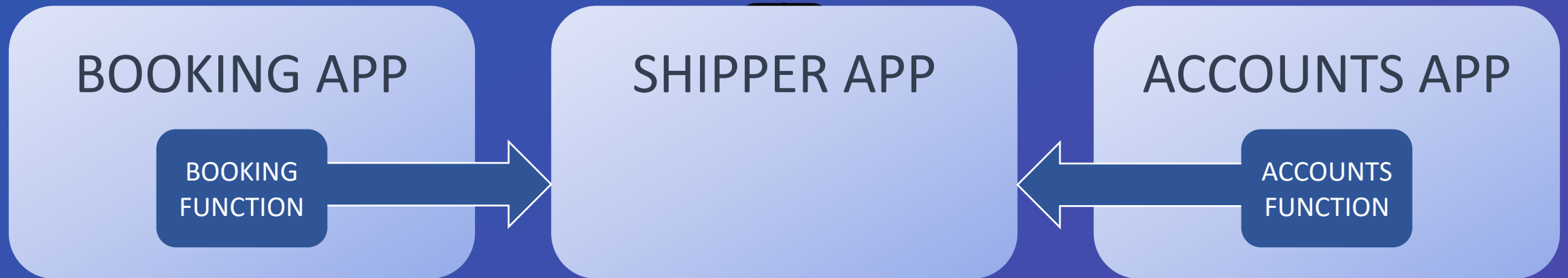
Why our work matters



1) ADOPTING APIs

Work Relevance

Why our work matters



1) ADOPTING APIs 2) CLEAN UP LEGACY CODE



RESULT:
MODERNIZED APPLICATION THAT WORKS AS A PORTAL



Work Timeline

Software Development Life Cycle

2-week scrum sprints


- User stories
 - Daily standups
 - Retro meetings
- 

Work Timeline

Software Development Life Cycle

Local code

- Pull from master branch
- Work and test on local machine

A screenshot of an IDE window showing three tabs: 'HelloController.java', 'GreetingController.java', and 'Application.java'. The 'Application.java' tab is active and shows the following code:

```
1 package com.jbhunt.infrastructure;
2
3 import org.springframework.boot.SpringApplication;
4 import org.springframework.boot.autoconfigure.SpringBootApplication;
5
6 @SpringBootApplication
7 public class Application {
8
9     public static void main(String[] args) { SpringApplication.run(
12
13     }
14 }
```

The code is written in a dark-themed editor with syntax highlighting. The line numbers are visible on the left side of the code block.



Work Timeline

Software Development Life Cycle

Pull requests

- Request merge from user branch to master
 - 2+ code reviewers must approve a merge
- 

In-House Training

How we learned

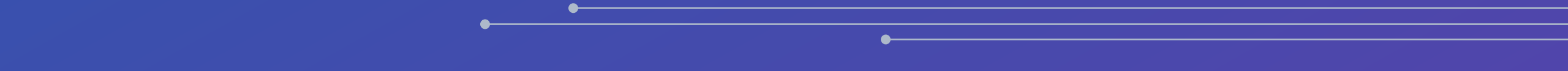
- Assigned a mentor within the team
- Online and in-person conference trainings



Work Tasks

What I was assigned

My user stories

- Remove and replace endpoints
 - Update their unit and integration tests
 - Test changes locally and in ADO pipelines
- 

Work Evaluation

Acceptance criteria

- Code must meet company standards (naming conventions, etc.)
- Evaluated by mentor → system → code reviewers → PR accepted

Technical Product

A more detailed look at the product

```
11502 when(accessFlags.captureQuoteAnalyticsForTemplatesEnabled()), then { return true };
11503
11504 // --- ACT ---
11505 BookServiceResponse<OrderWrapper> bookServiceResponse = given()
11506     .contentType(ContentType.JSON)
11507     .body(nextTemplatePreservedOrder)
11508     .when()
11509     .port(port)
11510     .post("/rest/shipments/bookorder")
11511     .then()
11512     .statusCode(HttpStatus.SC_OK)
11513     .extract().as(new TypeReference<BookServiceResponse<OrderWrapper>>() {
11514         }.getType());
11515 OrderWrapper orderWrapper = bookServiceResponse.getData();
11516
11517 // --- ASSERT ---
11518 assertThat(bookServiceResponse.getErrors()).isEqualTo(Collections.emptyList());
11519 assertThat(orderWrapper.getOrderNbr()).isEqualTo("W061626");
11520 assertThat(orderWrapper.getAgreementLaneId()).isEqualTo(123);
11521 assertThat(orderWrapper.getSource()).isEqualTo(DataSourceId.NextOM.toString());
11522 assertThat(orderWrapper.getModeNorm()).isEqualTo("Truck");
11523 assertThat(orderWrapper.getHasInvoiceAccess());
11524 assertThat(orderWrapper.getRebookable());
11525 assertThat(orderWrapper.getEditable());
11526
11527 verify(userSession, times(4)).getCurrentUserInfo();
11528 verify(userSession, times(8)).getUserid();
11529 verify(userSession, times(2)).getUserConfig();
11530 verify(userSession, times(2)).getUserGuid();
11531 verify(userSession, times(8)).getUserSelectedOrganizationGuid();
11532 verify(userAccess, times(4)).getPagePermissions(userid);
11533 verify(pagePermissions, times(1)).getBookShipment();
11534 verify(pagePermissions, times(1)).getTemplates();
11535 verify(pagePermissions, times(1)).getAccessType();
```

```
{
  - "createdRequestIdentifiers": [
    - {
      "requestId": "373c1eb2-527b-496a-9fd5-36e338f52985",
      "customerReferenceNumber": 0,
      "requestNumber": "ZYN3321"
    },
    - {
      "requestId": "978d7b8f-8bf6-4983-83d2-e60fa8fea312",
      "customerReferenceNumber": "388883333",
      "requestNumber": "ABC221"
    }
  ],
  - "errors": [
    - {
      "delayTime": "2010-10-22T10:20:05.112+00:00"
```


Challenges

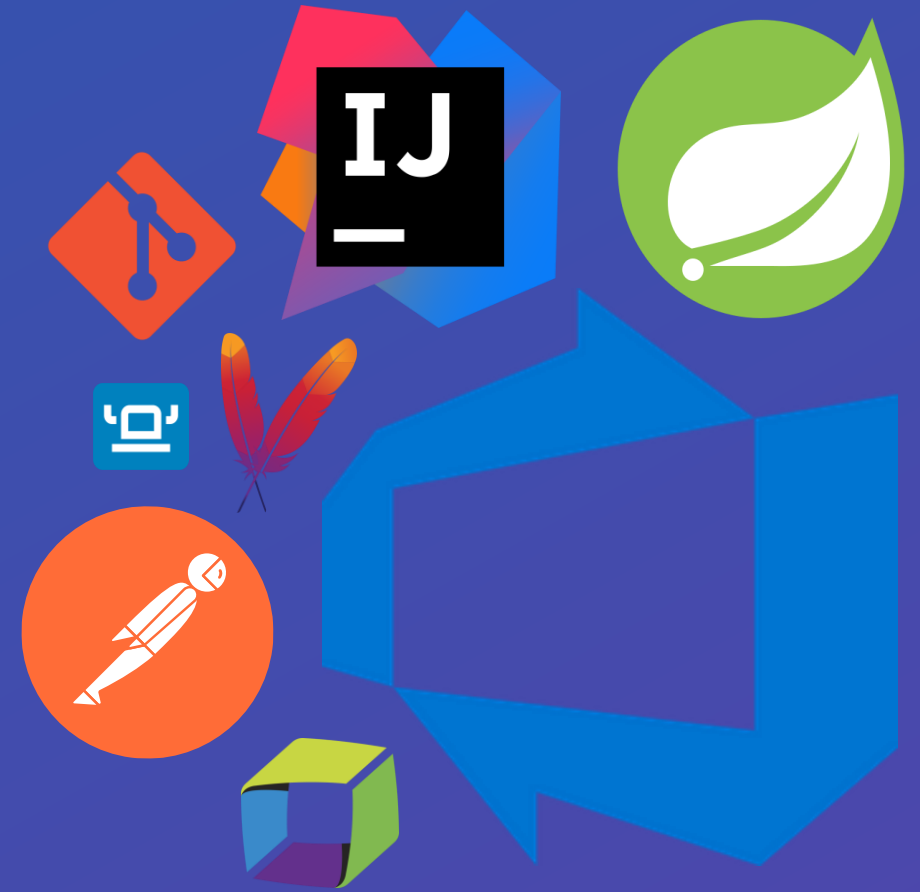
What I faced

- First time working in an industry environment
- Problems out of my control
- Mentors were busy with their own work

Technical Skills

Technical skills I acquired

- Backend tools
- Java/Spring Boot, Git, Postman...



Management Skills

Management skills I acquired

- Multiple stories in 2-week sprints
- Daily standups
- Manage between work and intern events



Next time...

Lessons I Would Apply to Next Internship

- Collaboration
 - Networking with peers and leaders
- 

Conclusion

All in all...

- Internship in a industry-leading company
- Learned a lot from working with a real-world product
- Importance of collaboration and networking

Thank you

Questions?



Contact me:
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