

Johnathan Khoa Nguyen

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SUMMARY

- ❖ 7 years experience working as a **Full Stack Software Engineer**; proficiency in implementing **RESTful** backend services using **Spring MVC, Spring Boot, Hibernate**, and **JPA standard**.
- ❖ Knowledgeable in **Java OOP** concepts: **Abstraction, Encapsulation, Inheritance**, and **Polymorphism**; well versed in **Java SE** libraries: **Collections, Multi-threading**, and **Exception handling**.
- ❖ Proficiency in **Java 8** features such as **Stream API, Lambda Expressions, Optional**, and **Functional Interfaces**.
- ❖ Efficiency in designing web services with **Microservice** architecture using **Spring Cloud** technologies: **Eureka, Gateway, Feign client**, and **RabbitMQ** for messaging.
- ❖ Experienced creating web applications with **React/NextJS Framework, JavaScript, TypeScript**, and **HTML5/TailwindCSS**.
- ❖ Structuring **NextJS/React** web applications using **App Router, Server-side rendered Components**, and **Stateful Client Components**.
- ❖ Defining controllers of **API Route Handlers** to support **Async Data Fetching** and **HTTP Methods**.
- ❖ Advanced Linking and Navigation architecture using **Nested Layouts, Redirects, Dynamic, Parallel**, and **Intercept Routes**.
- ❖ Well versed in **OAuth** sign-in services using **NextAuth** to support **JSON Web Tokens** and account **Sessions**.
- ❖ Optimizing web application performance with **Caching, Streaming, Lazy Loading**, and **Prefetch**.
- ❖ Skillful in writing **Responsive** frontend components in **HTML5/TailwindCSS**, handling automatic resizing to fit all screens.
- ❖ Experienced in connecting Relational databases (**MySQL, Amazon RDS**) to Java using **Spring Data, JPA standard, Hibernate**, and **JDBC**, as well as **AWS S3** for file storage; additional experience in connecting non-relational databases (**MongoDB**) to Java using **Spring Data** and **MongoRepository**.
- ❖ Utilized **Cypress** for frontend browser testing and debugging, **JUnit** and **Mockito** for backend unit testing, as well as **Postman** for verifying endpoint behavior.
- ❖ Knowledgeable in using **Git** for version control and **GitHub** for repository collaboration.
- ❖ Experienced with **Jira/Confluence** for team collaboration, project management, and task tracking.

SKILLS

Languages	Java 8, JavaScript, TypeScript, Python, SQL
Back-end	Spring MVC, Spring Boot, Spring AOP, Spring Data, Hibernate, J2EE, JDBC, RESTful Web Services, JSP, Tomcat, Apache
Front-End	Vercel, NextJS, NextAuth, React, Angular, TypeScript, JavaScript, HTML, Markdown, Tailwind/CSS, Retool, Builder.io
Database	MySQL, MSSQL, MongoDB
Web Service	AWS EC2, Elastic Beanstalk, S3, RDS, Docker, Kubernetes

Messaging	RabbitMQ, Kafka
Spring Cloud	Microservices, Eureka, Feign Client, Gateway
Security	JWT, Single Sign-on, OAuth
Testing	Autosys, Cypress, JaCoCo, JUnit, Mockito, Postman
Tools	Apache Maven, Confluence, Git, GitHub, Teamforge, Eclipse, IntelliJ, Jenkins, Jira, Visual Studio Code

EXPERIENCE

Freddie Mac (Java Developer / Full Stack)

***McLean, VA
April 2023 - Present***

Description:

Freddie Mac is the Federal Home Loan Mortgage Corporation, a government-sponsored enterprise. Designed to support homeownership for middle-income Americans, Freddie Mac buys loans from mortgage lenders, then combines them and sells them as mortgage-backed securities. My team is currently responsible for upgrading applications used by Freddie Mac business teams and employees. I worked on analyzing architecture of applications, building environments, and connecting new systems to existing servers, web applications and databases. I performed code analysis and remediation, and managed deployment to development and production environments.

Responsibilities:

- ❖ Collaborate, actively contribute ideas, and support colleagues under a team environment.
- ❖ Working alongside a team of 11 (line manager, tech leads, developers).
- ❖ Ability to quickly learn various software development tools and practices.
- ❖ Remediate and upgrade server based on security vulnerabilities, physical hardware and software requirements.
- ❖ Perform analysis on internal server infrastructure and its connections to existing interfaces, applications, databases, and web platforms.
- ❖ Smoke test current application and perform development testing on related GUIs, batch jobs, and databases.
- ❖ Build out a new server with upgrades based on scope requirements.
- ❖ Perform code changes for any code defects or broken functionality.
- ❖ Used **Teamforge**, **Bitbucket**, and **Jenkins** to manage code changes and deploy to both development and production environments.
- ❖ Upgraded **Python** version from 2.3 to 3.10. Modified code to handle string encoding based on the version changes.
- ❖ Upgraded middleware server from **RHEL** 7.9 to 8.9, **Tomcat** 9.0.73 to 9.0.83, **Apache** 2.4.53 to 2.4.57.

- ❖ Upgraded server with **DB2** client from 10.5 to 11.5 and remediated **SSL** port connection to internal and external facing applications.
- ❖ Enhanced application that utilizes **Java 17** and **Spring Framework** features for back end, **Angular** for front end, and **SQL** for the database. Modified Java code to repair broken functionality when making connection to **LDAP** servers.
- ❖ Used **Autosys** to control batch job execution and validate job functionality.
- ❖ Identified connections and created requests to designated teams for **SSH** keys, **CyberArk** mappings, **Firewalls**, **PING** urls, and **Keychain** access.
- ❖ Utilized **Jira/Confluence** for knowledge transfer, project management and task tracking.

Environment: Java 17, Spring Boot, Maven, MySQL, Linux, Python, Jenkins, IntelliJ, Git, GitHub, Cypress, Postman, JUnit, Mockito, HTML, Angular/TypeScript, Jira

Beaconfire Inc (Java Developer)

***East Windsor, NJ
June 2019 - March 2023***

Description:

Beaconfire Solutions is a leading Technology Solution and Professional Services organization. They offer innovative full-scale integrated information technology and software services to the clients nationwide. The company services the IT needs of its clients in application development, systems design, database administration and management, architecture services, project management, business analysis and quality assurance across various industry domains.

Responsibilities:

- ❖ Assisted in the development of company websites that utilized **Java 8**, and **Spring Framework**, and **React**, while following the company's pre-existing microservice architecture procedures for reliable rapid development.
- ❖ Helped define and implement the fixed schema of relational objects to correctly store data into **MySQL**.
- ❖ Mapped the Java domain entities to the database using **Spring Data**, **JPA**, and **Hibernate**.
- ❖ Utilized **Spring MVC** annotations such as **@GetMapping**, **@PostMapping**, and **@PutMapping** to define core application functionality.
- ❖ Improved frontend presentation using **React/TypeScript**.
- ❖ Mapped backend controller API to front-end UI routes.
- ❖ Provided code coverage and unit testing using **Mockito API** to create mock objects and **JUnit** framework for executing automated tests.
- ❖ Checked endpoints to validate functionally and responses using **Postman**.
- ❖ Used **GitHub** to store, track, and manage code throughout the development lifecycle.
- ❖ Collaborated with others and tracked tasks using **Jira/Confluence**

Environment: Java 8, Spring Boot, Maven, MySQL, Hibernate, Spring Data, IntelliJ, Git, GitHub, Cypress, Postman, JUnit, Mockito, HTML, React/TypeScript, Jira

Atlas Shippers International (Java Developer)

***Rancho Cucamonga, CA
February 2017 - May 2019***

Description:

Atlas is an international shipping company that provides door-to-door shipping services to the Philippines. My team was responsible for improving the backend services that allowed employees and customers to track and manage package information. I worked on improving the shipping and tracking service.

Responsibilities:

- ❖ Used **Java 1.8**, **Spring Framework**, **Tomcat**, and **Maven** to improve an existing monolithic application.
- ❖ Utilized **Spring Framework** features such as **Spring MVC** and **Spring Boot** to create the backend server-application.
- ❖ Created a dynamic user-interface using **JSP**, **Bootstrap**, and **Thymeleaf**.
- ❖ Helped rewrite service entities which utilize **Spring Data**, **JPA Repository**, and **Hibernate** in order to map java objects to relational database schema and communicate with **MySQL**.
- ❖ Implemented **Spring Transactions** via **@Transactional** annotation.
- ❖ Performed unit tests to verify code behavior and correctness using **Mockito API** to create mock objects in conjunction with **JUnit** framework to write and execute automated tests.
- ❖ Tested endpoints for correct behavior using **Postman**.
- ❖ Utilized **GitHub** for team collaboration and version control.

Environment: Java 1.8, Spring Boot, Maven, MySQL, Hibernate, Spring Data, IntelliJ, Git, GitHub, Postman, JUnit, Mockito, HTML, JSP, Thymeleaf

Portfolio Work

<https://github.com/JohnathanKhoa>

Nurtree

Generate Music Video Playlists Based on Spotify Playlists

<https://github.com/JohnathanKhoa/NurtreeWeb>

- ❖ The goal of this project was to demonstrate professional coding best practices, alongside the challenge of implementing advanced capabilities of the **NextJS** framework, by applying it to a practical use-case scenario involving **dynamic rendering** and **state management** with a substantial data set.
- ❖ Leveraging Spotify and Youtube's massive user, music, and video databases, Nurtree implements high performing and scalable design with **nested routes** and **dynamic page slugs**.
- ❖ The application dynamically generates music video playlists based on user's personal playlist data with the help of **server-side rendered components** and **API fetch routes** for seamless integration with frontend UI components.
- ❖ Written in **React** and **TypeScript**, the codebase is further enhanced with **nested layouts** and **TailwindCSS** for more custom design modularity and responsiveness across **mobile**, **tablet**, and **desktop** platforms.
- ❖ Integrated **NextAuth Authorization** with the Spotify Provider to implement secure login and **session management** using users' Spotify credentials.

- ❖ Implementations with **Redux** for **centralized global state management** on user's playlist data, bypassing **prop drilling** problems and allowing for **POST requests** to save/update playlists while maintaining uniform application **state behavior** across **client-side components**.
- ❖ Leveraged additional **Next.js** framework features, such as **API fetch memoization**, **lazy loading**, and **error handling** for a faster performing and well-rounded application design.
- ❖ Developed reusable and modular **TSX UI components** from the ground up, emphasizing maintainable design and separation of concerns.
- ❖ Utilized **Core Web Vitals** optimizations with **images**, **fonts**, and **scripts** to facilitate smooth media playback and seamless navigation for a better user experience.
- ❖ Detailed metadata generation using the **Metadata API**, maximizing exposure and improving **SEO** and web shareability.

EDUCATION

California State Polytechnic University, Pomona

Pomona, CA

June 2017

Bachelor of Science, Computer Science