

## Maharaja Thiyagarajan

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### Objective:

Master of Science student with more than three years of experience in full stack development using Angular, Java, with Spring MVC for micro-service applications. I specifically worked on Java Stream APIs, Interfaces, Web-clients API communications, J-unit, and GCP. I am seeking to leverage my skills and knowledge to contribute to a dynamic software industry and my passion for creating innovative solutions that expand my career in software development.

### Professional Skills:

- JavaScript
- Angular Framework (7 & above)
- Java and Spring using Maven
- Junit, J-meter, and Basics of Selenium tool
- PostgreSQL

### Work Experience:

#### Frontend Research Assistant

USA: Feb 2023 - Present

- Working as a Frontend Research Assistant in University of Michigan.
- Web application product development using React.
- **Project Specification:**  
*Developed dynamic workspaces enabling users to effortlessly create, edit, and delete workspaces.*  
*Experienced in React lifecycle hooks, Axios calls, Managing states and actions in React, JSX.*  
*Adept at developing Time line history charts using Apache E-charts, effectively visualizing data for enhanced user understanding and engagement.*

#### Renault-Nissan Technology and Business Centre.

Chennai: Aug 2019 - Aug 2022

- Worked on the Renault and Nissan Vehicle Plan and Validation web application. Our application have three micro-services and employed database per service architecture using Maven.
- Expertise in HTML, CSS, JavaScript, Angular and RXJS as Frontend and Skilled in Ag-grid functionality.
- Proficient in Java, Junit testing, Java stream API's, Model classes, Spring Framework, PostgreSQL database, Google Cloud Platform.
- **Project Specification:**  
*Highly skilled Angular developer with expertise in building reactive forms utilizing Form group, Form control, and Form array with custom validations in Angular 11 and above.*  
*Demonstrated ability in developing a comprehensive module comprising six components dedicated to Vehicle validation planning and testing prototypes, effectively implementing Lazy loading and preloading techniques for optimized screen loading.*  
*Proficient in integrating reactive forms and Ag-grid tables, adept at customizing Ag-grid columns with features like multiple checkbox dropdown and Custom auto-complete column etc.*  
*Implemented Http interceptor to seamlessly include user tokens in API calls and learned a wide range of Angular concepts throughout the project.*  
*Versatile Java backend developer experienced in designing and implementing robust Apache Kafka event-driven architecture to facilitate seamless communication among micro-services, ensuring data integrity and*

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*eliminating data loss.*

*Skillfully integrated Redis to cache application data, enhancing performance and responsiveness. Utilized Spring AOP for efficient and systematic loggings,*

*Proficient in handling DTOs, Entity class, Controllers, Services, Spring hibernate JPA and Sonarqube.*

- Worked Agile Methodologies with two week sprint and completed 220 points.
- Collaborated with product and UI/UX team to implement new feature developments.
- Supported SAT and UAT.

### Education:

Master of Science:

**University of Michigan – Dearborn, USA: Sep 2022 – Present**

- Software Engineering. GPA: 3.65 / 4
- Developed a Booking web application in Java to apply Software Design Patterns using Maven dependencies.
- Exploring Redis cache to improve the performance of the application.
- Experience in Testing Online shopping application using J-Unit, J-meter, Angular unit testing, Selenium tool.

Bachelor of Engineering. GPA: 3.28 / 4,

**Anna University, Chennai: Apr 2015 - Mar 2019**

- Skilled in Computer Architecture, OOPS using Java, Circuits, Signal Processing, Computer Networks.

### Project and Awards:

**Hotel Booking application using Angular and Java 11**

**University of Michigan - Dearborn 2022**

- Developed a Hotel booking web application in Java using design patterns and Event-driven architecture.
- The project is developed in Angular and Java using spring framework with two micro-services.
- Apache Kafka is used for inter-micro-service communication. This ensures reliable message delivery even in the presence of failures.

**Testing Web application.**

**University of Michigan - Dearborn 2022**

- Utilized J-Unit framework to conduct comprehensive testing of an online shopping application, focusing on backend Java classes.
- Successfully performed load and stress testing of the application using J-Meter, ensuring its robustness and scalability.
- Proficiently conducted component unit testing on the frontend screen of an Angular application using Jasmine karma, ensuring its reliability and functionality.

**Exploring K8s, Cloud SQL, Docker in Google Cloud**

**University of Michigan - Dearborn 2022**

- Our application is containerize using Docker and I created a Kubernetes cluster with three nodes.
- I configure my deployment.YAML file and service file. Then I rebuilt the project and push it to container registry. Created Load balancer and scaled the project up-to 3 replicas. From this GCP Project, I learned Docker, K8s, cloud SQL, GCP.
- Completed the Build a Website on Google Cloud: Challenge Lab.

**ISIE India 2019 Hybrid vehicle design and racing**

**Anna University – India 2019**

- Participated in Asia's biggest student formula event–Formula is imperial (ISIE-HVC) season-5 and won the Best Team Innovation Award at Buddh International circuit-Noida.
- Coded the Raspberry Pi micro controller using python to collect real-time data from the control unit of the vehicle. Trained the system using vehicle's datasets to increase the performance of Formula One cars.

### Certifications:

- NPTEL in C Programming by IIT Kharagpur.
- OOPS concepts and Data base Integration using
- Java from INFOSYS.
- Internet of Things using raspberry pi in TVS.