

MUHAMMAD SAAD

# JOURNEY FROM JAVA DESKTOP APPLICATIONS TO REACTJS FRONT-END DEVELOPMENT

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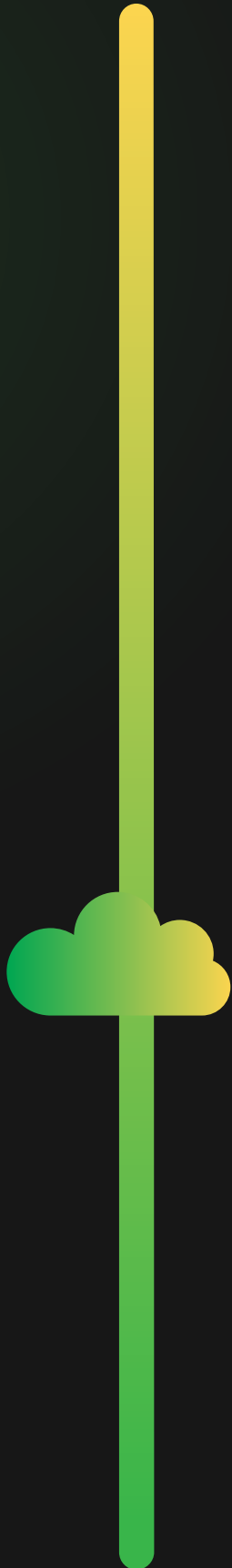


2023



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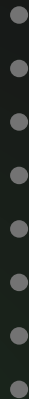
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# + INTRODUCTION

- Hello, this is Muhammad Saad and this presentation will cover my journey in front-end development and my experience with ReactJS.
- I started learning front-end development in June 2022.
- I have extensive experience in developing desktop applications in Java using various databases.
- Throughout this presentation, I will share my insights and experiences as a front-end developer and showcase some of the projects I have worked on.



# MY JOURNEY



- **JAVA DESKTOP APPS SERVED AS THE FOUNDATION FOR MY SOFTWARE DEVELOPMENT CAREER.**
- **DEVELOPED A NUMBER OF APPLICATIONS USING VARIOUS IDES AND DATABASES.**
- **REALIZED HOW IMPORTANT IT WAS TO KEEP UP WITH EMERGING TRENDS AND TECHNOLOGIES.**
- **BEGAN STUDYING HTML5, AND CSS IN JUNE 2022 IN PREPARATION FOR FRONT-END DEVELOPMENT.**
- **GAINED INSIGHTFUL KNOWLEDGE ABOUT THE ADVANTAGES OF FRONT-END PROGRAMMING UTILIZING REACTJS.**
- **WILL SHARE EXPERIENCES AND SHOWCASE PROJECTS TO HIGHLIGHT THE DIFFERENCES BETWEEN DEVELOPING DESKTOP APPLICATIONS IN JAVA AND FRONT-END APPLICATIONS IN REACTJS.**



# BUILDING EFFICIENT USER INTERFACES WITH REACTJS

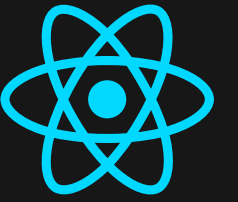
## REACTJS?

- REACTJS IS AN OPEN-SOURCE JAVASCRIPT LIBRARY USED FOR BUILDING USER INTERFACES.
- IT WAS DEVELOPED BY FACEBOOK AND IS CURRENTLY MAINTAINED BY FACEBOOK AND A COMMUNITY OF DEVELOPERS.
- REACTJS ALLOWS DEVELOPERS TO BUILD REUSABLE UI COMPONENTS AND MANAGE THE STATE OF THE APPLICATION EFFICIENTLY.

## WHY?

- ITS COMPONENT-BASED ARCHITECTURE ALLOWS DEVELOPERS TO BREAK DOWN COMPLEX UIS INTO SMALLER, REUSABLE COMPONENTS THAT CAN BE EASILY MAINTAINED AND UPDATED.
- REACT SUPPORTS VIRTUAL DOM, WHICH HELPS TO REDUCE THE NUMBER OF DIRECT DOM MANIPULATIONS, RESULTING IN FASTER RENDERING AND BETTER PERFORMANCE.
- REACT HAS A LARGE COMMUNITY OF DEVELOPERS
- DEVELOP BY META





# JAVA VS REACTJS: WHY IT FASCINATES ME

## JAVA

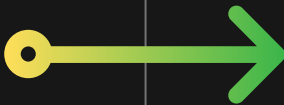
- REQUIRES MORE CODE AND CONFIGURATION FOR FRONT-END DEVELOPMENT COMPARED TO REACTJS
- CAN BE MORE DIFFICULT TO LEARN AND USE COMPARED TO MORE MODERN FRONT-END DEVELOPMENT FRAMEWORKS
- USER INTERFACE CAPABILITIES CAN BE LIMITED, MAKING IT MORE CHALLENGING TO BUILD DYNAMIC AND VISUALLY ENGAGING USER INTERFACES
- REQUIRES A RUNTIME ENVIRONMENT TO BE INSTALLED ON THE USER'S MACHINE, MAKING IT MORE DIFFICULT TO DEPLOY APPLICATIONS TO END-USERS
- APPLETS, WHICH WERE COMMONLY USED FOR FRONT-END DEVELOPMENT IN THE PAST, ARE NO LONGER SUPPORTED IN MANY MODERN BROWSERS.

## REACTJS

- OPTIMIZED FOR BUILDING USER INTERFACES AND DELIVERING A BETTER USER EXPERIENCE
- USES A VIRTUAL DOM, MAKING IT FASTER AND MORE EFFICIENT THAN JAVA FOR REAL-TIME UPDATES
- ALLOWS FOR THE CREATION OF REUSABLE UI COMPONENTS AND INTUITIVE USER INTERFACE DESIGN
- HAS A LARGER COMMUNITY OF DEVELOPERS AND A WIDER RANGE OF LIBRARIES AND RESOURCES AVAILABLE
- OFFERS EFFICIENT AND DYNAMIC USER INTERFACE DEVELOPMENT.




# FROM HTML/CSS TO REACTJS: A JOURNEY THROUGH FRONT-END DEVELOPMENT MILESTONES




## MILESTONE 1: HTML, CSS, AND JAVASCRIPT FUNDAMENTALS:

THE FIRST MILESTONE IS TO LEARN THE BASICS OF FRONT-END DEVELOPMENT, INCLUDING HTML, CSS, AND JAVASCRIPT. HTML PROVIDES THE STRUCTURE OF A WEB PAGE, CSS IS USED FOR STYLING AND DESIGN, AND JAVASCRIPT IS USED FOR INTERACTIVITY AND FUNCTIONALITY.



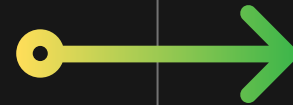
## MILESTONE 2: REACTJS FUNDAMENTALS:

THE SECOND MILESTONE IN PROGRESS IS TO LEARN THE FUNDAMENTALS OF REACTJS, INCLUDING UNDERSTANDING THE CORE CONCEPTS OF REACT, SUCH AS COMPONENTS, STATE, AND PROPS. IT IS ALSO IMPORTANT TO LEARN HOW TO USE JSX, A SYNTAX EXTENSION FOR JAVASCRIPT THAT ALLOWS DEVELOPERS TO WRITE HTML-LIKE CODE IN THEIR JAVASCRIPT FILES.





# FROM HTML/CSS TO REACTJS: A JOURNEY THROUGH FRONT-END DEVELOPMENT MILESTONES



## MILESTONE 3: REACTJS LIBRARIES AND TOOLS:

THE THIRD MILESTONE IN PROGRESS IS TO LEARN POPULAR LIBRARIES AND TOOLS USED IN REACTJS DEVELOPMENT. THESE INCLUDE REDUX, A PREDICTABLE STATE CONTAINER FOR JAVASCRIPT APPS, AND REACT ROUTER, WHICH ALLOWS FOR DECLARATIVE ROUTING IN A REACT APPLICATION. IT IS ALSO IMPORTANT TO LEARN HOW TO USE OTHER LIBRARIES AND TOOLS SUCH AS AXIOS FOR MAKING API CALLS AND STYLED COMPONENTS FOR STYLING REACT COMPONENTS.





# WHY I'VE CHOSEN FRONT-END?

AS SOMEONE WHO HAS EXPERIENCE WITH JAVA DESKTOP APPLICATIONS, I FIND FRONT-END DEVELOPMENT WITH REACTJS TO BE MORE FASCINATING BECAUSE OF ITS MODERN APPROACH TO BUILDING DYNAMIC USER INTERFACES. REACTJS FOLLOWS A COMPONENT-BASED ARCHITECTURE, MAKING IT EASY TO MANAGE AND SCALE COMPLEX UIS. ADDITIONALLY, REACTJS PROVIDES A WIDE RANGE OF THIRD-PARTY LIBRARIES AND TOOLS THAT CAN BE USED TO ENHANCE DEVELOPMENT SPEED AND EFFICIENCY. MY END GOAL IS TO BECOME A FULL-STACK DEVELOPER, AND LEARNING FRONT-END DEVELOPMENT WITH REACTJS IS AN IMPORTANT STEP TOWARD ACHIEVING THAT GOAL. OVERALL, THE FLEXIBILITY AND EFFICIENCY OFFERED BY REACTJS MAKE IT A MORE APPEALING CHOICE FOR FRONT-END DEVELOPMENT COMPARED TO JAVA.





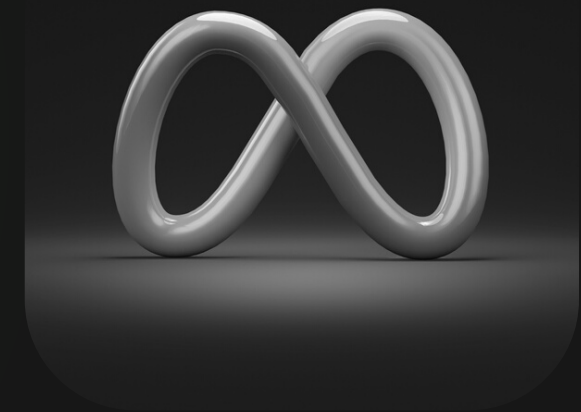
# ACCOMPLISHMENTS



SOME OF THEM ARE STILL IN PROGRESS



**SOFTWARE DEVELOPER  
COURSE  
LINKEDIN**



**FRONT-END META  
DEVELOPER  
COURSERA**



**INTERNSHIPS IN  
CYBERSECURITY  
10 WEEK REMOTE BY VTF**



**PENETRATION TESTING  
COURSE  
NATIONAL CYBER TRAINING  
PROGRAM**

# WHY REACT? ✓

## PROS:



#1

COMPONENT-BASED  
ARCHITECTURE MAKES  
IT EASY TO MANAGE  
AND SCALE COMPLEX  
UIs.

#2

PROVIDES A WIDE  
RANGE OF THIRD-  
PARTY LIBRARIES AND  
TOOLS FOR ENHANCED  
DEVELOPMENT SPEED  
AND EFFICIENCY.

#3

OFFERS SERVER-SIDE  
RENDERING,  
IMPROVING  
APPLICATION  
PERFORMANCE AND  
SEO.

#4

HAS A LARGE AND  
ACTIVE DEVELOPER  
COMMUNITY,  
PROVIDING SUPPORT  
AND RESOURCES.



# WHY NO REACT?

CONS:



#1

THE STEEP LEARNING  
CURVE, ESPECIALLY  
FOR BEGINNERS.

#2



REQUIRES KNOWLEDGE  
OF JAVASCRIPT AND  
ITS ASSOCIATED  
TECHNOLOGIES.

#3

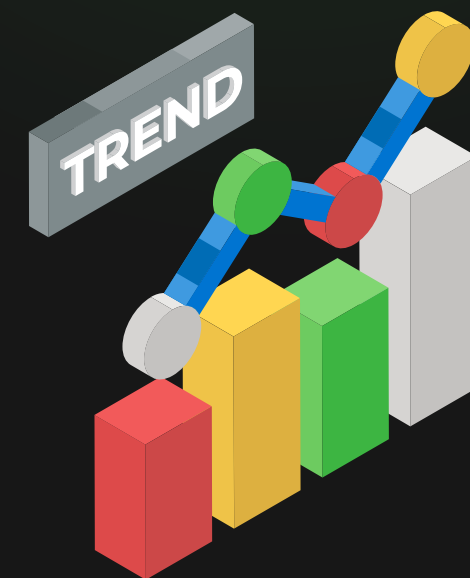
CAN BE DIFFICULT TO  
DEBUG DUE TO ITS  
COMPLEX STRUCTURE.

#4

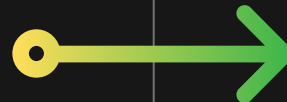
THIS MAY LEAD TO  
PERFORMANCE ISSUES  
IF NOT OPTIMIZED  
PROPERLY.

- 
1. INCREASED FOCUS ON SERVERLESS COMPUTING AND CLOUD PLATFORMS SUCH AS AWS LAMBDA AND AZURE FUNCTIONS, WITH REACT AS THE PRIMARY FRONT-END FRAMEWORK.
  2. CONTINUED ADOPTION OF PROGRESSIVE WEB APPS (PWAS) USING REACT, WHICH OFFER AN APP-LIKE EXPERIENCE IN THE BROWSER AND CAN BE INSTALLED ON MOBILE DEVICES.
  3. MORE WIDESPREAD USE OF REACT NATIVE FOR MOBILE APP DEVELOPMENT, ALLOWING DEVELOPERS TO BUILD APPS FOR BOTH IOS AND ANDROID PLATFORMS USING A SINGLE CODEBASE.
  4. GREATER EMPHASIS ON ACCESSIBILITY AND INCLUSIVE DESIGN PRACTICES WITHIN REACT COMPONENTS, ENSURING THAT WEB APPLICATIONS CAN BE USED BY PEOPLE WITH DISABILITIES.
  5. INTEGRATION OF REACT WITH EMERGING TECHNOLOGIES SUCH AS WEBASSEMBLY AND GRAPHQL, PROVIDING MORE POWERFUL AND PERFORMANT SOLUTIONS FOR FRONT-END DEVELOPMENT.
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# FUTURE TRENDS



# +PATHWAYS, I FOLLOWED



## FOR HTML, CSS & JS

I WOULD SUGGEST THE FOLLOWING WEB AND COURSES:

- [CODEWITHHARRY \(YOUTUBE\)](#)
- [W3SCHOOL](#)
- [LINKEDIN](#) :
  - HTML ESSENTIAL TRAININGBY: JEN SIMMONS
  - CSS ESSENTIAL TRAINING BY: CHRISTINA TRUONG
- [WEBDEVCODDY](#)

## FOR REACT

- [META FRONT-END COURSE](#)
  - WHICH WILL COVER FROM BASIC TO ADVANCE REACT
- [CODEWITHMOSH](#)
  - BEST FOR NEWBIE
- [MODERN REACT WITH REDUX](#)
  - BY STEPHEN GRIDER



# + NEW PATHWAYS, YOU CAN FOLLOW

NOW, THESE ARE THE MORE UPDATED OR I WOULD SAY THE MORE GOOD PATHWAYS THAT CAN SAVE YOU A LOT OF TIME .I HAD THE KNOWLEDGE OF OOP, DATA STRUCTURES AND SKILLS OF PROBLEM SOLVING BECAUSE I WAS A JAVA DEVELOPER BUT IF YOU HAD NO KNOWLEDGE OF THESE CONCEPTS THEN THIS PATH IS BEST FOR YOU

• LINKS ARE GIVEN IN THE END OF SLIDES

## + FRONT-END DEV PATHWAYS

- THE COMPLETE 2023 WEB DEVELOPMENT BOOTCAMP BY [DR. ANGELA YU](#)
  - IT IS AVAILABLE ON UDEMY AND IT'LL ILLUMINATE YOU WITH THE FULL STACK YOU CAN GET THE BASIC IDEA AND CAN PURSUE DIFFERENT DOMAINS IN THE FRONT END.
- WEB DEV COURSE BY [CODECADEMY](#)
  - THIS IS ALSO A VERY TOP-RATED COURSE AND IT'LL HELP YOU TO GROW PROFESSIONALLY BECAUSE IT'LL HELP YOU TO BUILD PROJECTS BY USING COURSE CONTENT KNOWLEDGE
- [W3SCHOOL](#) BEST SITE FOR BASIC KNOWLEDGE AND WORKING WITH HTML,CSS & JS
- [LINKEDIN](#) :
  - HTML ESSENTIAL TRAININGBY: [JEN SIMMONS](#)
  - CSS ESSENTIAL TRAINING BY: [CHRISTINA TRUONG](#)
- [WEBDEVCODDY \( YOUTUBER\)](#)
  - THIS PERSON CAN PERFORM MIRACLES BY USING VANILLA JAVASCRIPT. IN NUTSHELL,, YOU CAN MAKE YOUR JS CONCEPTS VERY STRONG AND CLEAR.

# LINKS OF NEW PATHWAYS, YOU CAN FOLLOWS.

1. [HTTPS://WWW.UDEMY.COM/COURSE/THE-COMPLETE-WEB-DEVELOPMENT-BOOTCAMP/#INSTRUCTOR-1](https://www.udemy.com/course/the-complete-web-development-bootcamp/#instructor-1)
2. [HTTPS://WWW.CODECADEMY.COM/CATALOG/SUBJECT/WEB-DEVELOPMENT](https://www.codecademy.com/catalog/subject/web-development)
3. [HTTPS://WWW.W3SCHOOLS.COM/](https://www.w3schools.com/)
4. [HTTPS://WWW.LINKEDIN.COM/LEARNING/HTML-ESSENTIAL-TRAINING-4?TRK=LEARNING-PATH&UPSELLORDERORIGIN=DEFAULT\\_GUEST\\_LEARNING](https://www.linkedin.com/learning/html-essential-training-4?trk=learning-path&upsellorderorigin=default_guest_learning)
5. [HTTPS://WWW.LINKEDIN.COM/LEARNING/CSS-ESSENTIAL-TRAINING-3?TRK=LEARNING-PATH&UPSELLORDERORIGIN=DEFAULT\\_GUEST\\_LEARNING](https://www.linkedin.com/learning/css-essential-training-3?trk=learning-path&upsellorderorigin=default_guest_learning)
6. [HTTPS://WWW.YOUTUBE.COM/@WEBDEV Cody](https://www.youtube.com/@webdevcody)

PS: THE PAID COURSES CAN BE ACCESS FREELY USING TORRENTING, THE WEBSITE TO FIND THESE COURSES IS  
[HTTPS://DOWNLOADFREECOURSE.COM/](https://downloadfreecourse.com/)

Thank  
you