Frontend

Guillermo Alonzo Zaldivar Valenzuela

Virtual Environments and Digital Businesses (4F VEDB)
Technological University of Tijuana (UTT.)
Tijuana, Baja California
0322103870@ut-tijuana.edu.mx

Abstract—**Frontend, also known as client-side development, refers to the part of a computer system or web application that users see and directly interact with. It includes design, user interface, user experience, and the implementation of features that enable direct user interaction. Frontend development involves using technologies such as HTML, CSS, and JavaScript to create visually appealing and functional interfaces in web browsers. In summary, frontend focuses on everything a user visually and functionally experiences when using software or an application.**

Index Terms—**component, formatting, style, styling, insert**

I. INTRODUCTION

The importance of the frontend in the development of web applications and software is essential to provide users with an attractive, intuitive and functional experience. The frontend, also known as the client side, encompasses the design and implementation of the user interface, as well as the direct interaction that users have with an application. Using technologies such as HTML, CSS, and JavaScript, frontend developers create visual interfaces that are not only aesthetically pleasing, but also optimize usability and user experience. A well-designed frontend is essential for attracting and retaining users, as it directly influences their impression of an application or website. Additionally, the frontend integrates closely with the backend (server side), allowing for efficient communication and a smooth user experience. In short, the frontend plays a crucial role in creating successful digital products by ensuring that user interaction is effective, engaging and satisfying.

II. WHAT IS FRONTEND?

Frontend is the part of a program, website, or device that a user can access directly. In the context of web design and web development, it refers to all the technologies that run in the browser and are responsible for interactivity with users.

The frontend is like the visible face of the site, where it is displayed:

1) **Design**
2) **Colors**
3) **The buttons**
4) **Everything you can see on the screen**

It is also responsible for making everything work correctly and responding to your actions, such as clicking a button or scrolling the page.

III. WHAT DOES A FRONT END DEVELOPER DO?

Frontend developers are those who create the visual components of a website. They are responsible for formatting:

- Images.
- Animations.
- Interactivity of a website

A frontend developer is responsible for building a website or application that provides a pleasant user experience. That means it looks good and works like it's supposed to. Frontend developers are usually not responsible for site design. However, they will work closely with UI and UX designers to turn your ideas into reality. Once the site or app is built, frontend developers are responsible for maintenance, testing, and ongoing developments such as feature updates.

A. What are the most used languages in front-end development?

hese languages are the most widely used and form the basis of front-end development. They allow you to create interactive and visually attractive web pages:

HTML (Hypertext Markup Language) CSS (graphic design language) JavaScript (programming language)

B. HTML y CSS

HTML and CSS go hand in hand and are the building blocks of website design. HTML stands for Hypertext Markup Language. Defines the structure of a web page. For example, you'll use HTML to indicate where headings go, where to put a paragraph break, and where to insert an image. All the text and images you are seeing on this same page are thanks to HTML. CSS stands for Cascading Style Sheets, and it deals with styling. For example, CSS can dictate the background color or font. You can use a single CSS style sheet to define styles across an entire site (that is, across multiple pages at once). A good frontend developer has experience with HTML and CSS and can quickly understand how to use them together to create a design. Luckily, HTML and CSS are pretty easy to learn. But truly mastering them can take time. Once you've learned the basics, you can practice your coding skills by looking at existing websites and trying to clone the design and features you see.
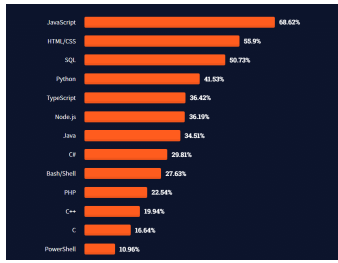
Fig. 1. Enter Caption

C. JavaScript

While HTML sets the framework and CSS defines the style, JavaScript makes a website interactive. If a website does more than display static information, it's probably thanks to JavaScript. For example, you can use JavaScript to create a map that updates in real time or to animate part of your website. According to a StackOverflow survey, JavaScript is the most used programming language by professional web developers. The next most popular language is HTML/CSS. JavaScript is more complex than HTML or CSS, but it is still one of the most accessible programming languages. You can learn it in a matter of months.

D. React and other libraries, and JavaScript Framework

JavaScript libraries and frameworks are tools that make JavaScript development faster and easier. A JavaScript library is a set of reusable code that you can put in your project. It saves you the work of developing a feature from scratch when other developers have already done it. There are more than 83 libraries, each of which has a specific purpose. For example, Chart.js is a library that allows you to easily create charts and graphs for your website. One JavaScript library you should be familiar with is React. React is a free and open source library maintained by Facebook. It is used to build user interfaces for single-page applications and is currently the most popular JavaScript library. JavaScript frameworks are similar to libraries. Both provide reusable code, but the usage is a little different. When you use a library, you take care of the flow of the application. You decide where in your code to call a library component. With frameworks, you are connecting your code to the framework. Instead of your code calling the library, the framework calls your code at designated points. A couple of popular frameworks you should be familiar with are Angular.js and Vue.js.

E. Summary

Becoming a frontend developer is an excellent step in your career. It's a job you can learn yourself online, the potential salary is high and your skills will be in demand for years. The best way to become a frontend developer is to learn everything you can about HTML, CSS, JavaScript, and related skills. You can do this through school or teach yourself using online resources.

REFERENCES

[1] Nestrategia, Agencia de posicionamiento web en Madrid. (2022, December 30). *¿Qué es Back End, Front End y Back Office y por qué es importante para tu web?* Agencia Inbound Marketing Madrid. https://nestrategia.com/desarrollo-web-back-end-front-end/
IEEE conference templates contain guidance text for composing and formatting conference papers. Please ensure that all template text is removed from your conference paper prior to submission to the conference. Failure to remove the template text from your paper may result in your paper not being published.