



## Job Description - Jr. Full Stack Developer

7/26/2020

### A. Job Title: Junior Full Stack Developer

The Junior Full Stack Developer will be advised by the Full Stack Developer - a professional who works on both client-side and server-side software that includes the full stack of Front End Technology, Back End Development Languages, Database, Server, API, and version Controlling Systems. Hence, the name "Full Stack" Developer.

The Junior Full Stack Developer is an independent contractor who will bill an average of 5 - 10 hours a month. Technical advisor is the Full Stack Developer - Ralph Schindler. Administrative contact is the LCPD Technology Committee Chairperson - Reid Raymond; email [reid@posno.com](mailto:reid@posno.com), Ph. 504-914-6052. Independent contractors and committee members are under the supervision of the Board of the Lakeview Crime Prevention District; see Board of Commissioners at [www.lcpdnola.org](http://www.lcpdnola.org).

### B. Job Description and Skills of Junior Full Stack Developer:

- Knows enough PHP (or Javascript) to be able to take on tasks of web application development to support [www.lcpdnola.org](http://www.lcpdnola.org).
- Familiarity with the Laravel PHP framework, Node.js, Tailwindcss, VueJS, are all pluses as they represent parts of our full stack to varying degrees. Versed in Javascript or similar (Ruby, Python) and willing to learn and advance PHP skills.
- Familiarity with AWS services such as EC2, RDS, VPC's and the like, enough to be able to take on or learn enough to manage and administer tasks of these services.
- Knowledge of 3rd party APIs and integration of 3rd party services via a REST API. Experience with Twilio is a plus.
- Manage web front ends to update LCPD websites and portals.
- Document and flowchart systems - front end to back end.



### C. Baseline Requirements of Junior Full Stack Developer:

- Has a machine (desktop or laptop) for development.
- Comfortable with using the command line, command line tools, SSH to connect to remote servers/instances.
- Comfortable with using Git source control, specifically via github.
- Comfortable with pairing with other developers and communicating with tools such as Slack, Google Meet, etc.



### D. Glossary

#### AWS - Amazon Web Services:

- EC2 - Elastic Compute Cloud service that provides secure, resizable compute capacity in the cloud.
- RDS - Relational Database Service that sets up, operates, and scales a relational database in the cloud.
- VPC - virtual private cloud is the networking layer for Amazon EC2; it is the virtual network dedicated to the AWS (Amazon Web Services) account.

API (application programming interface) - is a computing interface which defines interactions between multiple software intermediaries.

- REST (representational state transfer) API - is a software architectural style that defines a set of constraints to be used for creating Web services.

Git (unpleasant person in British English slang) - is a distributed version-control system for tracking changes in source code during software development.

- GitHub - GitHub, Inc. is a United States-based global company that provides hosting for software development and version control using Git. It is a subsidiary of Microsoft.

JavaScript - a programming language that conforms to the ECMAScript which is the standard to ensure the interoperability of Web pages across different Web browsers. It is the dominant client-side scripting language of the Web.

- ECMAScript - a general-purpose programming language, standardized by Ecma International according to the document ECMA-262. It is a JavaScript standard meant to ensure the interoperability of web pages across different web browsers.
- Python - another interpreted, high-level, general-purpose programming language. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for small and large-scale projects.
- Ruby - another interpreted, high-level, general-purpose programming language. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming.

Laravel PHP Framework - used for the development of web applications following the model-view-controller (MVC) architectural pattern.

Node.js - an open-source, cross-platform, JavaScript runtime environment that executes JavaScript code outside a web browser. It lets developers use JavaScript to write command line tools and for server-side scripting - running scripts server-side to produce dynamic web page content before the page is sent to the user's web browser.

PHP (PHP: Hypertext Preprocessor) - general purpose scripting language that is especially suited to web development.

Slack - a proprietary business communication platform developed by American Software Company Slack Technologies. It offers many IRC-style features, including persistent chat rooms (channels) organized by topic, private groups, and direct messaging.

- IRC (Internet Relay Chat) - is an application layer protocol that facilitates communication in the form of text.

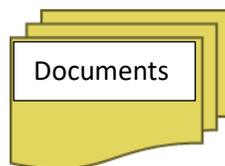
SSH (secure shell) - provides a secure channel over an unsecured network by using a client-server architecture, connecting an SSH client application with an SSH server.

Tailwindcss - a utility-first CSS framework for rapid UI development.

- CSS (cascade-style-sheets) - design language that simplifies the process of making web pages presentable.
- UI (user interface) - design that makes interaction between the user and the machine easy, efficient, and user-friendly in order to produce the desired result.

Twilio - a cloud communications platform as a service (CPaaS). It allows software developers to programmatically make and receive phone calls, send and receive text messages, and perform other communication functions using its web service APIs.

VueJS (commonly referred to as Vue) - is an open-source model-view-view model (MVVM) JavaScript framework for building user interfaces and single-page applications.



E. Reference Job Description of Full Stack Developer:

- Front-end technology - developer should have knowledge of essential front-end technologies like HTML5, CSS3, and JavaScript. Aware of third-party libraries like jQuery, LESS, Angular and React JS is desirable.
- Development Languages - developer should know at least one server-side programming languages like Java, Python, Ruby, .Net etc.
- Database and cache - knowledge of various DBMS technology like MySQL, MongoDB, Oracle, and SQLServer. Know caching mechanisms like varnish, Memcached, Redis.
- Basic design ability - knowledge of designing is recommended. Know the principle of basic prototype design and UI /UX design.
- Server - exposure to handling Apache or nginx servers is desirable. A good background in Linux helps tremendously in administering servers.
- Version control system (VCS) - allows developer to keep track of all the changes made in the codebase. The knowledge of Git helps to understand how to get the latest code, update parts of the code, and make changes in other developer's code without breaks.
- Working with API (REST & SOAP) - knowledge of web services or API is important. Knowledge of creations and consumption of REST and SOAP services is desirable.
- Other skills:
  - Ability to write quality unit tests and have a complete understanding of automated processes for building testing, document, and deploying it at scale.
  - An awareness of security concerns is important, as each layer has its own vulnerabilities
  - Knowledge of algorithms and data structures is also essential.

