

Abijeet Patro

SOFTWARE ENGINEER · TEAM LEAD

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Summary

I am a Node.js and PHP full-stack developer with over 8 years of experience in various domains such as health care, usage based insurance, sports and data extraction. I have worked with front-end technologies such as AngularJS, React, Vue.js and with DevOps tools such as Ansible and Gitlab CI / CD. I have also worked with various database systems such as MySQL, Cassandra, Redis and SQLite.

I am a proponent of modern JavaScript and PHP having used both ES6 and PHP 7 to build business applications. I'm also spending some time learning Rust. I love designing and architecting systems. Seeing smaller services seamlessly work together to achieve a larger goal brings me a lot of joy. I am an advocate of all things Open Source. Being a fan of the Linux operating system, I enjoy customizing my development environment and maintaining a server of my own.

When I'm not in-front of a computer, I enjoy fixing things, looking after my indoor plants, working on my motorbike and bicycle, traveling and reading Fantasy and Sci-fi novels.

Work Experience

Software Engineer

[Remote](#)

WIKIMEDIA FOUNDATION - LANGUAGE TEAM

Feb. 2019 - PRESENT

- Developing the *Translate extension* and other software that form a part of *MLEB*, that enhances MediaWiki with essential features needed to perform translation work.
- Working as a project liaison, translation admin, developer and system admin for *Translatewiki.net*

Technical Consultant

[Hyderabad, India](#)

OSMOSYS SOFTWARE SOLUTION

Jan. 2019 - PRESENT

- Helping with architecture design and technical decision for new projects.
- Identify and guide development of re-usable components.
- Reviewing quality and security of deliverables.

Mentor, Team Lead & Software Engineer

[Hyderabad, India](#)

OSMOSYS SOFTWARE SOLUTION

May. 2015 - Nov. 2018

- Keeping track of what my team is up to, ensuring that they are not blocked with anything technically or personally.
- Reviewing code, setting up guidelines, adopting technologies and processes for the development team to follow.
- Interfacing with the client, understanding their requirements and taking accountability of deliverables.
- Designing and developing critical aspects of projects based on PHP and Node.js.
- Continuing to be part of the recruitment and training process for both experienced candidates and freshers.

Software Engineer

[Hyderabad, India](#)

OSMOSYS SOFTWARE SOLUTION

Jun. 2013 - Apr. 2015

- Involved in documenting development processes, exploring best practices, tools and libraries to be used by the PHP team.
- Developing PHP applications using CakePHP and WordPress. Writing automated tests using the behavior driven development (BDD) framework Behat.
- Interviewing and training freshers in web-technologies - HTML, CSS, JavaScript and jQuery.
- As part of the R&D Team, building, maintaining and documenting various reusable C# components. Documentation was generated from C# summary statements using Sandcastle help file builder.
- Developing our first Android application that used Contacts, GPS and MS Dynamics CRM as the back-end via a REST API.

Associate Software Engineer

[Hyderabad, India](#)

OSMOSYS SOFTWARE SOLUTION

Oct. 2012 - Aug. 2013

- Interacting with the client, gathering requirement and handling data migration for their product.
- Website design and development using ASP.NET, HTML, CSS, JavaScript and jQuery.
- Undergoing training in HTML, CSS, JavaScript, jQuery and C#.NET.

Skills

Programming	JavaScript, PHP, Rust
Framework / CMS	Node.js, Express, Cordova, CakePHP, Laravel, WordPress, MediaWiki, React, AngularJS, Vue.js, Bootstrap, jQuery
Databases	Cassandra, Redis, MySQL, MariaDB, SQLite
DevOps Tools	Ansible, DataDog, Supervisor, PM2, Linux, Gitlab CI / CD
Tools	Bash, Postman, Gimp, Meld, Visual Studio Code, NetBeans, Geany, nano, git, NSQ, RabbitMQ, grunt
Project Management	PineStem, JIRA, Trello, Asana, Phabricator

Translate Extension for MediaWiki

[Remote](#)

OPEN SOURCE

The *Translate extension* enhances MediaWiki with essential features needed to do translation work. It can be used to translate the content pages, the interface of the wiki and even other software products, as it is used at [translatewiki.net](#).

The Translate extension provides an easy to use translation interface. It can separate the content structure from the text content that needs to be translated, showing only the translatable text to translators by splitting the content into manageable units. Each unit is automatically tracked for changes, and translators immediately see what needs updating on a specific page or throughout the wiki.

I was primarily a developer involved with,

- Improving the interface that translator admins use to process incoming messages from projects to handle renamed messages.
- Adding a new validator framework to improve the quality of translations being exported out of [translatewiki.net](#).
- Refactoring, and moving notification sending process to the background to handle sending of large number of notifications smoothly.
- Reducing PHP memcache usage to improve network latency. Refactored the code that was responsible for cache storage to break down and streamline the contents of the cache.
- Involved with improving the other extensions that are part of the *MLEB* package. Helping with release of newer versions of MLEB.
- Reviewing code submitted by other developers. Integrating Sonarqube with the existing codebase, and improved code quality as per code analysis tools.

Programming PHP, MediaWiki, jQuery, YAML
Database MariaDB, Memcache

Translatewiki.net

[Remote](#)

OPEN SOURCE

Translatewiki.net is a translation community and a localisation platform for free and open source projects. It started out with localisation for MediaWiki. Later support was added for MediaWiki extensions, FreeCol and other free and open source projects. See the complete list of supported projects.

For [translatewiki.net](#), I have a varied set of responsibilities,

- Responsible for maintaining and developing the features of [translatewiki.net](#).
- Importing and exporting translation changes. Monitoring message changes in projects and advising people on how to perform message re-names, changes etc.
- Reaching out to new projects, and ensuring smooth collaboration.
- Deploying updates to the MediaWiki installation, performing configuration changes and monitoring the error logs.

Programming PHP, MediaWiki
Database MariaDB
Others Puppet, Linux

PowerPath

[Cleveland, Ohio](#)

EMANATE WIRELESS

PowerPath is a clinical asset monitoring (CAM) unit that helps health care industry employees improve workflow, achieve lower costs, and enhance the quality of clinical care. It measures the AC power consumption and temperature over time for clinical assets such as patient monitors, bed warmers and refrigeration units.

The system developed handles requests from thousands of monitors connecting to the server every few minutes. It then processes the received data in real time, determining the alerts to be generated and computing data for reports.

I was the project manager and the team lead. Other than guiding the team, I was involved with,

- Setting up the base platform on top of which further development for the API and the portal was done.
- Developing the JSON interface on the IoT device using the Marvell SDK.
- Designing and coding the interface between the cloud server and the Powerpath device.
- Designing and coding the JWT based authentication system and the user role system.
- Writing a common interface to communicate between different databases - Redis, Cassandra and MariaDB.
- Designing and developing the various components involved in the alert notification system.
- Designing the incident management system.
- Manual setup of the production server.
- DevOps - Developing Ansible scripts to automate deployments and reduce downtime.

Programming Node.js, Express, AngularJS, JavaScript, jQuery, C, JWT
Database MariaDB, Redis, Cassandra
Others NSQ, Marvell SDK, Micro-services, Ansible

PineStem

Hyderabad, India

OSMOSYS SOFTWARE SOLUTIONS

PineStem is a project management tool for software teams that has been built with an Agile philosophy in mind. It has an integrated bug tracking tool, kanban board, billing system and various reports that provide insights into an employee's performance.

Other than guiding the team, some of the aspects of the project that I was involved in include,

- Setting up the base for the front-end code. Took into account the size of the project, functionalities needed and recommended guidelines when structuring the project.
- Providing directions to break down the monolithic back-end code base into smaller micro-services.
- Approving and overseeing the integration of any new plug-ins that were needed.
- Designing the system that allows users to select their own timezone and date formats.
- Designing the notification system that takes into account user's notification, timezone and date format preferences while sending notifications.
- Analyzing and improving front-end portal performance, specifically on Internet Explorer and Edge.
- Performing the production server setup and adding guidelines to be followed for future deployments.

Programming AngularJS, JavaScript, jQuery, Protractor
Database MariaDB
Others AngularJS Batarang, NSQ, Micro-services, GitLab CI/CD

BaseDrive

Quebec, Canada

BASELINE TELEMATICS

BaseDrive is built to allow insurance agencies to provide a usage-based insurance for vehicles. A telemetric device connected to the end users car transmits driving data to an API, that processes the data to determine the premium that the user has to pay based on their driving behavior.

I worked as a Team lead for the customer portal, and as a developer on the back-end API and the admin portal. My work included,

- Working on the collector API that collects the data sent from the devices connected to the car.
- Guiding and developing the WordPress portal used by clients to review their insured vehicles, driving data, premiums and contracts.
- Worked on the back-end REST API that is used by the mobile applications to provide functionality similar to the portal.
- Developed the gamification platform using which contests and competitions can be conducted for users.
- Wrote game rules using Lua. Insurance agencies can then create their own rules or modify existing ones.

Programming PHP, WordPress, CakePHP, Slim Framework, Lua, JavaScript, jQuery
Database MySQL
Others Google Maps, RabbitMQ

Counterpick

Sweden

COUNTERPICK

Counterpick is a tool built for the online multiplayer game League of Legends. League of legends (LoL) is a tower defense game, where you team up with 4 other heroes to protect your towers against 5 enemy heroes. Each hero has multiple unique skills.

There are a total of 140 odd champions in the game, which brings the total possible team combinations to over 432 million. Counterpick helps players pick champions that will improve their odds of winning in a game.

I worked as a developer on the project.

- Creating an algorithm to meet the client requirement. The algorithm is designed to keep runtime performance fast by pre-processing certain values beforehand.
- Designing the structure of the system and deciding the components that were needed.
- Developing the node module that contains the core business logic. This module is used across multiple components both on the front-end and the back-end.

Programming Node.js, JavaScript
Database MariaDB
Others NSQ, Babel, Jasmine

RaceONE

Sweden

RACEONE

RaceONE makes it easier for spectators to follow athletes that they are interested in. It supports many different types of sports and integrates with APIs provided by event organizers.

During a race, using the GPS on the phone, the real time position of athletes is reported to spectators. The camera can be used to share photos and videos. Registered event organizers can also report the location of athletes whenever they cross a checkpoint or milestone.

I worked as a mobile developer on the project.

- Developing requested features on the application including redesign of key elements on the application.
- Providing feedback to improve the user experience
- Migrating the application from AngularJS 1.5 to 1.6 and upgrading other plug-ins used by the application
- Improving performance and reducing battery usage of the application during an active race.

Programming AngularJS, Cordova
Others Google Maps

Import.io

California, US

IMPORT.IO

Import.io is a product that allows businesses to extract data from various sources on the web and then transform that data to gather business insights.

Osmosys is a partner for Import.io handling data analysis and extraction for multiple projects. My role in this project was that of a Project manager and Team lead. During this time I was involved with,

- Understanding the client's business requirements, the statement of work and deciding what attributes needed to be captured.
- Giving regular updates to the client with respect to multiple parallel projects
- Setting up delivery schedules for the client as per the statement of work.
- Helping the DEV team with any technical issues during extraction.

Programming JavaScript, jQuery, Node.js
Database SQLite
Others Amazon S3, Amazon Athena

Open source contributor

I enjoy helping out and contributing to open source projects in my free time. It exposes me to a variety of development techniques. It has also helped me to be more compassionate and improve the way I ask my questions. I contribute to projects that I generally use at work or personally.

- **Pustam** - Initially started this as a way to keep track of my daily tasks without having to use a cloud server. I have stopped development on this in favor of Joplin.
- **BookStack** - A documentation software that I found when looking for a self-hosted Wiki for my company. Have been contributing to it ever since and have now become a maintainer. I have a self hosted version of BookStack for my wife and me to document our travels.
- **Nextcloud** - An alternative to Google Drive and Docs. I came across this while looking for a self-hosted file sharing software for work. I'm part of the Nextcloud design team, helping improve the front end of the application. I have a Nextcloud instance on my DigitalOcean server for syncing my Joplin notes and saving important files.
- **Joplin** - A note taking app that I came across on Hackernews. I was previously using Pustam, but this already did a lot of the things that I wanted to implement. I contribute to features that I find useful and which are requested on the issue tracker. I'm using Joplin with Nextcloud to sync notes across all my devices.

Awards

2015 **Unicorn Award**, Osmosys Software Solutions
2014 **Garuda Award**, Osmosys Software Solutions

Hyderabad, India
Hyderabad, India

Education

Ravenshaw University

B.SC. IN INFORMATION TECHNOLOGY AND MANAGEMENT

Odisha, India
Apr 2008. - May 2011

National Institute of Information Technology

GNIIT

Odisha, India
Apr 2008. - Apr 2012