

Abijeet Patro

SOFTWARE ENGINEER · TEAM LEAD

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Summary

I am a Node.js and PHP developer with 6 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, ReactJS 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 applications. 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.

My personal projects include a Markdown based note-taking application called Pustam. I have given up development on Pustam in favor of Joplin, to which I occasionally contribute. I'm a core contributor to BookStack and also a part of the NextCloud design team.

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

Work Experience

Mentor, Team Lead & Software Engineer

Hyderabad, India

OSMOSYS SOFTWARE SOLUTION

May. 2015 - PRESENT

- 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. 2014 - 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.

R&D Team member

Hyderabad, India

OSMOSYS SOFTWARE SOLUTION

Sept. 2013 - May. 2014

- 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.

Trainee

Hyderabad, India

OSMOSYS SOFTWARE SOLUTION

Jun. 2012 - Sept. 2012

- Undergoing training in HTML, CSS, JavaScript, jQuery and C#.NET.

Skills

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

Powerpath

Cleveland, Ohio

EMANATE WIRELESS

PowerPath (<http://www.emanatewireless.com>) 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 token 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 NodeJS, Express, AngularJS, JavaScript, jQuery, C

Database MariaDB, Redis, Cassandra

Others NSQ, Marvell SDK, Micro-services, Ansible

PineStem

Hyderabad, India

OSMOSYS SOFTWARE SOLUTIONS

PineStem (<https://pinestem.com>) 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.
- Architecting the module based ACL system on both the front and the back-end.
- Designing the system that allows users to select their own timezone and date formats.
- Designing the back-end notification system that takes into account user preference while sending all user notifications.
- Analyzing and improving front-end portal performance, specifically on Internet Explorer and Edge.
- Performing the production server setup and laying down instructions 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 (<https://www.baseline.io/en/>) 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. During this time, 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.
- Integrated Live Helper Chat platform into the WordPress portal to allow the support team and customers to interact.
- 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. Using Lua insurance companies can 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 (<https://www.raceone.com/>) 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 AngularJS 1.6 and upgrading other plugins 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** (<https://github.com/Pustam/app>) - Initially started this as a way to keep track of my daily tasks without having to use a cloud server. Have now stopped development on this in favor of Joplin.
- **BookStack** (<https://www.bookstackapp.com/>) - 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 becoming a maintainer. I have a self hosted version of BookStack for my wife and me to document our travels.
- **Nextcloud** (<https://nextcloud.com/>) - 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** (<https://joplin.cozic.net/>) - 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

Hyderabad, India

2014 **Garuda Award**, Osmosys Software Solutions

Hyderabad, India

Education

Ravenshaw University

Odisha, India

B.SC. IN INFORMATION TECHNOLOGY AND MANAGEMENT

Apr 2008. - May 2011

National Institute of Information Technology

Odisha, India

GNIIT

Apr 2008. - Apr 2012
