PRASANTH JANARDHANAN

Product Development Specialist

prasanthmj@gmail.com | +91 9845422369 | https://prasanthmj.github.io/ | linkedin.com/in/prasanthmj/

Summary

15+ years of hands-on software product development experience. Delivering value by building software products and systems that closely match end user requirements. Follower and evangelist of agile and scrum principles and methods. Focus and expertise are in the BackEnd, building microservices, integrating with other services and middleware components and database systems. Expert in building CI/CD pipelines, automation and DevOps. Always strive to keep updated by continuous learning

FUNCTIONAL EXPERTISE

- **Agile and Scrum**
- **User story mapping**
- **MVP and Product Roadmap Planning**
- **Continuous user feedback analysis**
- **Coding: Go, Typescript, React**
- **Devops: Kubernetes, Terraform, AWS**

WORK EXPERIENCE

Dome platform, Senior Backend Engineer — trydome.io

2022 Dec - till date

Fully remote position in a platform as service startup

Dome Core Platform

Working as a Senior Backend Engineer at Dome, a next-generation Platform as a Service (PaaS) product, I have significantly contributed to its development and evolution. Dome is uniquely designed for developers to deploy Dockerized microservices with ease, leveraging Kubernetes for limitless scaling capabilities. My role in this innovative PaaS product has spanned various critical aspects, providing a fully managed PaaS without any scaling constraints. My key responsibilities and contributions include:

- **Core Platform Development:** Developed essential components of the platform, including an automated deployment setup. This setup enables the platform to automatically build and deploy configured microservices, streamlining the deployment process. Utilized client-go, Kubernetes, and Tekton for building and deploying pipelines.

- **Advanced Billing System:** Instrumental in creating the billing setup that accurately tracks and bills for usage, including CPU/RAM and storage. This system ensures fair and transparent billing based on actual resource consumption.

- **Legacy Code Refactoring:** Took charge of refactoring legacy code to enhance flexibility and performance. This initiative was critical in modernizing the codebase and improving overall platform efficiency.

- **Database Systems Integration:** Worked on integrating various database systems like MySQL, PostgreSQL, MongoDB, and Redis. This integration facilitated seamless database management and interoperability within the platform.

- **REST API Design:** Built the REST API backend using Golang. This included implementing API authentication and session management workflows for the API endpoints.

- **Image Registry Integration:** Contributed to integrating the Harbor image registry, enhancing the platform's efficiency and functionality.

- **Product Revamp and MVP Delivery:** Played a pivotal role in revamping the entire product to align with its core values, leading to the development of the Minimum Viable Product (MVP) and acquisition of paying customers.

- **Scaling Challenges:** Actively involved in addressing scaling challenges to ensure the product's robustness and its capability to handle an increasing volume of users.

- **Platform Engineering Expertise:** As an expert platform engineer, I was instrumental in building a full-scale Platform as a Service product. Working in a startup environment, I contributed to the creation of a product that stands out in the competitive PaaS landscape.

My involvement in Dome has been a rewarding journey, contributing to a product that marks a significant advancement in the PaaS industry. My diverse skill set and adaptability have played a crucial role in overcoming various challenges and achieving key milestones in the product's development.

Technologies used:
Go lang, Kubernetes, Google Cloud Platform, AWS

CredCore, Senior Staff Engineer

credcore.com

2021 Sept - 2022 Nov

Fully remote position in a Fintech Startup

Capital structure management product

As a skilled system architect and expert in system design, I was an integral member of the team responsible for developing a capital structure management product at CredCore. From the early stages of the project, I worked closely with the team to conduct interviews, analyze user needs, map user stories, and design the technical architecture of the suite of products.

- To build fast, secure microservices, I leveraged my expertise in Golang and collaborated with the team to choose Postgres as the database back-end, with GraphQL interfaces exposed using Go microservices for the core of the system. The front-end was developed using ReactJS.
- I also worked with the team to integrate Temporal, a tool for managing workflows and backend recurring jobs, with the Go microservices.
- To handle covenant document analysis, we utilized AI and deep learning models built in Python, with manual expert review added as a workflow step.
- The system also required a streaming message broker to handle user activity tracking and routing messages from different software systems, and Kafka was chosen for this purpose. I worked with the team to integrate Kafka with the associated microservices using Kafka API endpoints.
- I also contributed to the integration with the Nylas API for importing from Google/Microsoft contacts and calendar, and was involved in the SOC2 compliance process to ensure compliance requirements were followed.
- In addition, I played a key role in designing and implementing a billing module using the Stripe API to allow customers to subscribe to any of the different products/services as needed and select the number of users and their access levels.
- The services were deployed on AWS and GCP, utilizing Terraform as an Infrastructure as a Code tool. The microservices were deployed on Kubernetes running on Amazon EKS, and also on GKE resulting in a multi-cloud service.

Technologies used:

Go lang, Typescript, ReactJS, Tailwind CSS,Postgres, Redis, Temporal, Kafka, AWS,GCP, Terraform, Kubernetes (Amazon EKS)

Simfatic Solutions, Senior Tech Lead simfatic-solutions.com

2009 Jan - 2021 May

Senior role in a Workflow and Project Management Startup

Realtime Truck and Transportation Monitoring and Management Product

I was responsible for improving the reliability and speed of a real-time truck and transportation monitoring and management system for a client experiencing issues with the existing system's real-time availability. To achieve this, I architected the system for greater reliability and speed and optimized it for scaling up.

- The existing system was a tightly coupled monolith, so to improve its reliability and scalability, I decomposed it into smaller microservices and introduced Kafka as the streaming message broker.
- I also replaced some of the slow legacy code with microservices written in Go lang, which improved the system's response times and maintainability.
- The microservices were deployed on Kubernetes running on bare metal nodes, and MicroK8s proved to be a valuable tool in this deployment model.

- The new system was introduced over several iterations, each time resulting in notable performance improvements, a reduction in issues faced, and faster response times.

Technologies used:

Go lang, PHP, VueJS, InfluxDB, Kafka

Work Management and Monitoring Product for Telecom tower construction companies

The product is a real-time monitoring and tracking system for tower installation and maintenance used by contractors of such construction companies.

- I was responsible for conducting interviews with end-users, customers, and other stakeholders to understand the requirements and challenges faced by contractors in the industry. I collaborated with the team to create user stories and develop a product roadmap for a real-time monitoring and tracking system for tower installation and maintenance.
- I worked with a team of experts to design the technical architecture for the system from the ground up, with a key requirement being the ability to monitor maintenance operations in real-time via video streaming.
- The recordings needed to be saved for reference as well. To achieve this, I integrated different services using microservices built with Golang, pure C, and Typescript/NodeJS, and deployed the core services to AWS.
- I also participated in the integration of the services with the front end, which was developed using Vue/Nuxt.

Electronics For Imaging, Inc, Associate Architect https://www.efi.com

April 2004 – January 2009

Electronics for Imaging (Nasdaq: EFII) builds software products for large-scale printing and publishing businesses.

Project: JDF Connector Architecture and implementation

I was a key member of the team responsible for designing and implementing the JDF Connector for the company. I worked with product teams and external vendors to plan, design, and implement an integration platform using an industry-standard known as JDF. This project involved integrating more than 4 separate information systems in different platforms as well as embedded systems and devices, all working together in an automated manner.
The company's products were diverse and ranged from embedded systems to large-scale management systems, but they were not integrated and had little communication between them. In addition, there were various industry partners and manufacturers with their own software tools and packages that operated independently. The goal of the JDF Connector was to create integrations between these systems and conform to the JDF standard, a comprehensive XML-based specification developed by industry leaders to facilitate communication between systems.

- I collaborated with both internal teams and external partners to create an architecture for the system and develop a product roadmap.

- The connector library was designed in C++ with a low memory footprint and multi-threaded system, given that most of the company's systems were developed in C++ and some products had low memory footprints.
- The implementation of the connector was also built in C++, following object-oriented design and architecture, and deployed on a range of platforms from embedded Linux to Windows desktops.
- The JDF Connector allowed for better integration of the company's products and enabled them to sell product suites that bundled different applications together, resulting in improved income flows.

Technologies used:

C++, wxWidgets, Vmware

LG Software India, System Analyst [http://www.lgsoftindia.com/]

October 2002 – April 2004

The software development division of LG

Working on Software products - embedded as well as tools for the electrical/electronic types of equipment.

- Implemented a video player for the MMS clients in LG's feature phones.
- Lead the development of a product for estimating the load of HVAC (Air conditioning for large buildings) and generating quotations.

EDUCATION

Bachelor's Degree in Computer Science

1994-1998, Mahatma Gandhi University, Kottayam India.

Professional Scrum Product Owner,
Scrum.org, 2022

Certified Kubernetes Administrator (CKA)
The Linux Foundation, 2019

Certified Kubernetes Application Developer (CKAD)
The Linux Foundation, 2019

OPEN SOURCE PROJECTS

qUP

https://github.com/prasanthmj/qup

qUP is a background task processor with persistence support written in Go (**golang**). It uses BadgerDB for persistence.

Chimes

https://github.com/prasanthmj/chimes

A JWT authentication library in **TypeScript**

OneCluster

https://github.com/prasanthmj/onecluster

A Terraform/Ansible project to build Kubernetes infrastructure on the Hetzner cloud

LANGUAGES

- English, Fluent