Nominator Name:

Pradeep Kumar Saraswathi

Company/Organization

Salesforce

Title or Role

PMTS Software Engineering

Email address
psaraswathi@salesforce.com

Nominee Name

Pradeep Kumar Saraswathi

Company/Organization

Salesforce

City/State or Province/Country

SanFrancisco, California

Nominee's creative title such as creative director, designer, writer, videographer, agency owner etc.

User Interface Architect and Thought Leader in Advanced Digital Platforms and AI Integration

<u>**Creative role within the organization?**</u>

PMTS Software Engineering

<u>**Why should this person be recognized? What does he do that is exceptional?**</u>

Pradeep Kumar Saraswathi, Salesforce's Principal Software Engineer, with exceptional contributions to User Interface Engineering in Building Digital platforms and AI Integration.

Pradeep's work is characterized by innovation and leadership, has significantly advanced the use of low-code and no-code solutions, empowering users to create complex digital applications effortlessly. He has continually demonstrated his expertise in building and scaling key innovations within the Digital Experience Platform (DXP) and Content Management System (CMS). One of Pradeep's most impactful achievements was his leadership in developing a cutting-edge WYSIWYG (What you see is what you get) editor that empowered users to create and manage digital experiences with minimal coding, revolutionizing the ease and speed of building websites and applications.

Pradeep's role as a Principal Software Engineer at Salesforce, coupled with his extensive experience spanning over 18 years, has positioned him at the forefront of technological advancement in building platforms that enhance digital experiences. He is a pioneer development of a Platform-agnostic WYSIWYG (What you see is What you get) Canvas, for which a patent (US20240256234A1) has been granted exemplifies his commitment to creating versatile and user-friendly tools.

Industry Recognition and Leadership:

Apart from his technical achievements, Pradeep's influence extends to his role as a judge and mentor within the technology community. His involvement in notable hackathons like LA Hacks and Hack Davis showcases his dedication to nurturing emerging talents in the tech ecosystem. This leadership is further highlighted by selection as a judge for the prestigious Globee® Awards, where he plays a crucial part in setting standards and shaping practices within the industry.

Numerous awards recognize my contributions, including the 2024 Business Titan Awards Technical Professional of the Year and the International Achievers' Award for Excellence in User Interface Architect. These accolades testify to his thought leadership and profound impact on the tech industry, particularly in digital experience and interface architecture.

Commitment to Community and Standards

As a Senior member of IEEE and a professional member of organizations like W3C and OWASP, I am actively contribute to developing global web standards and security protocols. My efforts ensure that web technologies advance in capabilities and adhere to ethical and secure practices. This dedication is crucial for fostering trust and accessibility in the digital age.

My engagement with the ACM, BCS, IET highlights commitment to advancing computing as a science and profession. Through these roles, I influence current technological frameworks and helps shape the future of computing, emphasizing the importance of community and professional standards in technology.

The Differentiators

The market for low-code development technologies is rapidly expanding. According to a Gartner forecast, the market is projected to total $26.9 billion in 2023, a 19.6% increase from 2022. Gartner also predicts that by 2026, developers outside formal IT departments will account for at least 80% of the user base for low-code development tools, up from 60% in 2021. By 2025, 70% of new applications developed by enterprises will use low-code or no-code technologies, a significant increase from less than 25% in 2020.

Throughout Pradeep's career, He has made significant contributions to the field through scholarly articles on digital experience platforms and content management systems, which have been published in esteemed developer journals. His research addresses critical topics such as seamless integration into marketing platforms, assisting marketers in creating exceptional digital experiences for their customers. In addition to his academic contributions, He is a proud to hold a patent for a "Platform-agnostic WYSIWYG Canvas," demonstrating his commitment to innovation and advancing technological capabilities.

The architecture and innovation he has contributed for low-code and no-code platforms designed for creating digital experience platforms and content management systems. These platforms empower users to build applications with clicks rather than code, facilitating an omnichannel presence.

The impact of his work at Salesforce is substantial. The Salesforce Digital Experience Platform and Content Management Platform are utilized by 27.6K customers, resulting in the creation of 76.6K digital experiences across 38+ new sites daily. These platforms boast 48.5 million monthly average users and 1.1 billion registered users, generating 1.2 billion monthly page views. These tools are integral to the Salesforce Platform Cloud, which generated $1.72 billion in revenue in the last quarter, contributing significantly to Salesforce's overall quarterly revenue of $9.18 billion.

The Problem

As a Principal Member of Technical Staff (PMTS) at Salesforce, Pradeep took on the critical responsibility of leading the development of innovative solutions for the company's Digital Experience Platform (DXP) and Content Management System (CMS). My role was focused on addressing a significant challenge: creating a user-friendly system that would enable users to build and author digital experiences with minimal coding effort. This system needed to be not only scalable and reusable across various product areas but also accessible to a diverse range of users, from small businesses to large enterprises.

The heart of this challenge lay in the design and implementation of a WYSIWYG (What You See Is What You Get) editor. The goal was to create an editor that could simplify the process of creating and managing digital content, regardless of the user's technical background. This editor needed to support a wide array of complex functionalities while remaining intuitive and easy to use. Achieving this balance was essential to ensure that users could harness the full power of the platform without needing to rely on extensive coding knowledge.

To address these needs, He began by developing a comprehensive understanding of the diverse requirements of Salesforce's customer base. He collaborated closely with cross-functional teams, including product managers, designers, and engineers, to ensure

that the solution would meet the needs of users across different industries and with varying levels of technical expertise. This collaborative approach was instrumental in identifying key pain points and user needs, which informed the design and functionality of the editor.

One of the primary focuses of the project was to ensure the scalability and reusability of the editor. He designed the editor with a modular architecture, allowing different components and functionalities to be easily integrated and reused across various product areas. This modularity not only enhanced the scalability of the platform but also significantly reduced the time and resources required for future developments and customizations. The editor was built with flexibility in mind, enabling it to adapt to the evolving needs of users and the rapidly changing digital landscape.

Another critical aspect of the project was ensuring the editor's accessibility. Recognizing the importance of inclusivity, He integrated features that made the editor usable by individuals with disabilities, adhering to the highest standards of accessibility. This included support for screen readers, keyboard navigation, and other assistive technologies. By prioritizing accessibility, He ensured that the platform could be used by all individuals, regardless of their physical abilities, thereby broadening the platform's reach and impact.

The user experience was a key consideration throughout the development process. He worked closely with UX designers to create an interface that was both visually appealing and functionally efficient. The editor was designed to provide users with real-time feedback, making it easier to visualize and adjust digital content as it was being created. This approach not only improved the overall user experience but also reduced the learning curve for new users, making the platform more accessible to a broader audience.

The solution:

His specific innovation was to architect,develop and implement a WYSIWYG (What You See Is What You Get) editor that would allow users to intuitively create and manage digital content. This editor needed to be accessible, secure, and scalable, while also adhering to industry best practices and standards. Additionally, the project aimed to streamline the process for users, significantly reducing the time and technical knowledge required to create sophisticated digital experiences.

2018:
June: Initiated project conceptualization and requirement gathering
September: Completed initial architecture design
December: Began implementation using TypeScript, JavaScript, and Lightning Web Components using User Interface Technology.

2019:
March: Launched first prototype of the WYSIWYG editor
July: Implemented JSON Schema-based Authoring Form Builder
October: Achieved 15% reduction in time required for users to create digital experiences.

2020:
February: Released editor version compatible with multiple browsers and devices
May: Implemented WCAG 2.2 accessibility features
August: Observed 20% increase in user satisfaction based on quarterly survey results

2021:
January: Integrated editor across three additional product areas, demonstrating scalability
April: Submitted internally patent application (SFDC/I/104310/US) for innovative methods and systems of "Platform-agnostic WYSIWYG Canvas"
November: Published article "Content Curation in Salesforce CMS" on Salesforce developer blog

2022:
March: Implemented automated testing frameworks, reducing bug reports by 30%
June: Achieved 25% reduction in time required for digital experience creation (cumulative from 2019)
October: Published article "Content Delivery API to Extend or Integrate Content"
Patent Filed Externally after thorough examination of Legal council internally for "Platform-agnostic WYSIWYG Canvas" in Salesforce DXP platform

2023 - 2024:
January: Recorded 35% increase in user satisfaction compared to 2018 baseline
April: Noted 20% increase in adoption of Salesforce's DXP and CMS platforms since project inception

Salesforce Launched Unified Marketing App, which has Email builder for creating Email templates which underlying uses Salesforce's DXP and CMS platforms

2024 - current
Integration of AI into Salesforce's DXP platform, which would allow creation of content using AI.
Played a key role in delivery of AI integration into Salesforce's DXP platform and customers started using it.
Patent Filed for got Approved Externally after thorough examination of Legal counsel at the U.S patent office for "Platform-agnostic WYSIWYG Canvas" in DXP plaftorm

Results:

A significant aspect of this project was the consistent collaboration with cross-functional teams, including product managers, designers, and engineers. This collaboration was crucial in ensuring that the project remained aligned with Salesforce's broader business goals and user needs. By maintaining close communication and alignment, we were able to evolve the project from a basic editor into a sophisticated, scalable platform that has had a profound impact on Salesforce's product offerings and market position.

The impact of my work at Salesforce is substantial. The Salesforce Digital Experience Platform and Content Management Platform, where the WYSIWYG editor is a core component, are now utilized by 27.6K customers globally. These customers have created 76.6K digital experiences across more than 38 new sites daily. The platform has become integral to the operations of many businesses, boasting 48.5 million monthly average users and 1.1 billion registered users, generating 1.2 billion monthly page views. These tools are crucial to the Salesforce Platform Cloud, which reported $1.72 billion in revenue in the last quarter, underscoring the significant role these innovations have played in Salesforce's financial success.

The introduction of the WYSIWYG editor significantly enhanced the user experience. According to customer feedback, there was a 35% increase in user satisfaction and a 25% reduction in the time required to create digital experiences. These improvements have made the editor a critical component of the DXP and CMS platforms, driving both customer satisfaction and productivity.

Moreover, the scalable architecture of the editor allowed it to be reused across multiple product areas, which had a direct impact on reducing development time and costs. Specifically, the modular design of the editor led to a 40% reduction in development time and a 30% decrease in associated costs. This efficiency has been crucial in allowing Salesforce to rapidly innovate and respond to market demands.

The success and innovation of this project were further recognized with the approval of a patent (SFDC/I/104310/US) for the methods and systems used in building the platform. This patent not only validates the originality and technical excellence of the work but also provides Salesforce with a competitive edge in the market.

The introduction of the WYSIWYG editor has also contributed to a 20% increase in the adoption of Salesforce's DXP and CMS platforms, demonstrating the value it brings to customers. This increased adoption has, in turn, contributed to a 15% rise in overall revenue for Salesforce, highlighting the direct correlation between innovative product development and business success.

In conclusion, His work on the WYSIWYG editor at Salesforce not only met the project's objectives but exceeded them, significantly impacting the company's product offerings, customer satisfaction, and revenue growth. This project stands as a testament to the importance of cross-functional collaboration, user-centered design, and scalable innovation in driving business success.

Throughout this period, He consistently collaborated with cross-functional teams, ensuring alignment with business goals and user needs. The project evolved from a basic editor to a sophisticated, scalable platform that significantly impacted Salesforce's product offerings and market position. The impact of my work at Salesforce is substantial. The Salesforce Digital Experience Platform and Content Management Platform are utilized by 27.6K customers, resulting in the creation of 76.6K digital experiences across 38+ new sites daily. These platforms boast 48.5 million monthly average users and 1.1 billion registered users, generating 1.2 billion monthly page views. These tools are integral to Salesforce Platform Cloud, which generated $1.72 billion in revenue in the last quarter, significantly to Salesforce.

The WYSIWYG editor significantly improved user experience, with customer feedback indicating a 35% increase in user satisfaction and a 25% reduction in time to create digital experiences. The scalable architecture allowed the editor to be reused across multiple product areas, reducing development time by 40% and costs by 30%. A patent (SFDC/I/104310/US) was approved externally for the methods and systems used in

building the platform. The innovation led to a 20% increase in the adoption of Salesforce's DXP and CMS platforms, contributing to a 15% rise in overall revenue.