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| **PS** | **Prabhjot Singh** Principal Software Engineer, Salesforce Inc. Master in Software Engineering & Development Management, Carnegie Mellon University |

### **Academic Qualification**

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| Master of Science | Software Engineering and Development Management  ***Carnegie Mellon University*, Pittsburg, US** |
| Bachelor of Technology | Instrumentation and Control Engineering  ***Dr. B.R. Ambedkar National Institute of Technology*, Jalandhar, India** |
| Certificate Course | Innovation and Entrepreneurship Certificate, ***Stanford*, CA, US**  Natural Language Processing Certificate with Deep Learning, ***Stanford*, CA, US** |

### **Professional Qualification**

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| **Principal Software Engineer** | **Salesforce Inc., San Francisco, US** | **2013-Current** | |
| *Technologies*: Docker, Swarm, Kubernetes, Kafka, Solr, Pitney Bowes, Couchbase, Hbase, Spring, Spark, Yarn, ECS, IAM, Rest API, MySql, Splunk, GIT, Jenkins, HTML5, JAVA, Apex | | |  |
| * Conducted and performed architecture and design reviews for multiple products to provide strong architectural support. * Oversee technical horizon for few teams. * Worked with third party partners/vendors to ensure architecture and integration alignment. * Designed Revenue Recognition process for Salesforce QTC. * Designed and enhanced Invoicing capabilities including invoice run for QTC. * Lead and designed instrumentation platform for Salesforce QTC. * Spearheaded the decommissioning of datacenters for first party datacenter to AWS migration for Lightning Data Exchange platform. * Re-architected several components of the Lightning Data application for AWS migration. * Architected or designed multi-AZ distributed architecture in AWS. * Designed fault tolerant multi-region distributed system and Zero downtime strategy for cloud. * Analyzed and enhanced performance of both QTC and Lightning Data products at various levels. * Designed and Lead a team deliver matching and vendor API integration for Data as a Platform solution (Lightning Data). * Designed and developed metadata driven Third Party API integration. * Designed and developed metadata driven authentication mechanism, request generators and response parsers. * Lead a project for source code transition to GIT. * Lead a project to move whole stack from Java 7 to Java 8, and later from Java 8 to openjdk. * Lead adaptive indexing project from inception to AB testing stage. * Developed APEX package for data assessment. * Worked with business partners in increasing throughput capacity from 10K request/hr to 1 million request/hr. Increased throughput enable customers to clean data in 5X less time, and helped sales to generate additional 15% revenue/year. * Designed and developed automated solution to monitor complete infrastructure uptime parameters. * Implemented log based alerting mechanism, traffic distribution dashboards, and production validation scripts. Automated system reduced deployment time from 3hrs to 15mins, bumped uptime to 99.994%, and reduced team’s engineering effort by 6% per year. | | | |

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| **Tata Consultancy Services** | **Assistant Systems Engineer** | **Feb 2012 – July 2012** |
| *Technologies: Eclipse, Java*   * Developed an agile process management tool-Kanban Board that helped client in analyzing bottlenecks and reaching market swiftly. * Led a team of six trainees’ for development of Telecom Store Inventory product, and won the first prize out of 10 teams | | |

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| **Sensifi Inc.** | **Software Engineer** | **Aug 2010 – May 2011** |
| *Technologies: XCode, Objective C, Heroku*   * Designed, developed and published a RSS comic strip aggregator app, Comimix, on Apple app Store. App got featured at numerous websites as “app of the day” with total downloads crossing ~10K mark. * Performed market research, idea validation and gathered feedback in terms of usability. Incorporated the feedback like date/time filters, custom website addition for enhanced user experience. * Analyzed usage patterns, and pivoted our revenue model from paid app to advertisement revenue. This bumped up app’s revenue to 1.6X. * Implemented features like asynchronous download and multithreading for stream-less swiping. • Integrated social handles for quick sharing and social marketing. | | |

### **Patents**

1. Integrating Third-Party Vendors' APIs *(Allowed)*
2. Managing Authorization Tokens for Calling Third-Party Vendors *(Allowed)*
3. Multi-Vendor Synchronization Platform Supporting Multiple Formats *(Published)*
4. Cache Optimization for Missing Data *(Published)*
5. Managing Access Credentials for a Service Provider *(Pending)*
6. Clock-Synced Transient Encryption *(Pending)*
7. Voice Transaction Gateway *(Pending)*
8. App-Initiated Voice Transaction *(Pending)*
9. Cross Account Access for a Virtual Personal Assistant via Voice Printing *(Pending)*

### **Book Chapters**

1. Singh, P., Dixit, V., & Kaur, J. (2019). Green Healthcare for Smart Cities. *Green and Smart Technologies for Smart Cities*, 91-130.
2. Parasher, Y., Singh, P., & Kaur, G. (2019). Green Smart Town Planning. *Green and Smart Technologies for Smart Cities*, 19.
3. Parasher, Y., Singh, P., & Kaur, G. (2019). Green Smart Security System. *Green and Smart Technologies for Smart Cities*, 165-184.
4. Tomar, P., Kaur, G., & Singh, P. (2018). A prototype of IoT-based real time smart street parking system for smart cities. In *Internet of Things and Big Data Analytics Toward Next-Generation Intelligence* (pp. 243-263). Springer, Cham.
5. Kaur, G., Tomar, P., & Singh, P. (2018). Design of cloud-based green IoT architecture for smart cities. In *Internet of Things and Big Data Analytics Toward Next-Generation Intelligence* (pp. 315-333). Springer, Cham.
6. Parasher, Y., Kedia, D., & Singh, P. (2018). Examining Current Standards for Cloud Computing and IoT. In *Examining Cloud Computing Technologies Through the Internet of Things* (pp. 116-124). IGI Global.

### **Journals**

1. Yadav, V., Tomar, P., Singh, P., & Kaur, G. (2020). Improvement in XML Keyword Search and Ranking for Data Analytics. In *Smart Systems and IoT: Innovations in Computing* (pp. 339-349). Springer, Singapore
2. Srivastava, D., Kaur, G., & Singh, P. (2019). Design of novel hybrid WDM/multiple-beam FSO system to improve the link length in rainy season. *Journal of Optics*, *48*(2), 184-188.
3. Kaur, G., Srivastava, D., Singh, P., & Parasher, Y. (2019). Development of a novel hybrid PDM/OFDM technique for FSO system and its performance analysis. *Optics & Laser Technology*, *109*, 256-262.
4. Kaur, G., Rani, N., Parasher, Y., & Singh, P. Design and Implementation of Electro-Optic 2× 2 Switch and Optical Gates using MZI. *Journal of Optical Communications*.
5. Kaur, G., Kumar, A., Parasher, Y., & Singh, P. Design of Multichannel Optical OFDM System Using Advanced Modulation Techniques. *Journal of Optical Communications*
6. Narang, S., & Singh, P. Comparison of Results of PID and Fuzzy Control of Two Linked Rigid Manipulator.

### **Conferences**

1. Parasher, Y., Kaushik, A., Kaur, G., & Singh, P. (2018, November). Modelling of structural and material parameters of optical planar waveguide to control birefringence. In *Latin America Optics and Photonics Conference* (pp. Th4A-36). Optical Society of America.
2. Kaur, G., Dhamania, M., Tomar, P., & Singh, P. (2018, January). Efficient Integration of High-Order Models Using an FDTD–TDMA Method for Error Minimization. In *International Conference on Communications and Cyber Physical Engineering 2018* (pp. 311-323). Springer, Singapore.
3. Singh, P., Tomar, P., Kaur, G. and Goel, S. K.  (2017), “Reusability Estimation Model for Component-Based Software using Fuzzy Logic”, 2017 MTMI International Conference on Emerging Issue in Business, Technology and Applied Science, Dubai, UAE, (Paper Accepted).

### **Certification**

* AWS Certified Solutions Architect – Associate
* AWS Certified Developer – Associate
* Certified Scrum Master
* Pragmatic Marketing, Level VI Product Management Certification
* Splunk Certified Power User
* Splunk Certified Knowledge Manager V.6