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PRABHJOT SINGH

Principal Software Engineer, Salesforce Inc.
Master in Software Engineering & Development Management,
Carnegie Mellon University

ACADEMIC QUALIFICATION

Master of Science	Software Engineering and Development Management <i>Carnegie Mellon University, Pittsburg, US</i>
Bachelor of Technology	Instrumentation and Control Engineering <i>Dr. B.R. Ambedkar National Institute of Technology, Jalandhar, India</i>
Certificate Course	Natural Language Processing Certificate with Deep Learning, <i>Stanford, CA, US</i> Innovation and Entrepreneurship Certificate, <i>Stanford, CA, US</i> Management Essentials, <i>Harvard Business School, MT, US</i>

PROFESSIONAL QUALIFICATION

Principal Software Engineer	Salesforce Inc., San Francisco, US	2013-Current
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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.

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

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. *US Patent 10,616,352: Integrating Third-Party Vendors' APIs*
2. *US Patent 10,616,230: Managing Authorization Tokens for Calling Third-Party Vendors*
3. *Cache Optimization for Missing Data (Allowed)*
4. *Multi-Vendor Synchronization Platform Supporting Multiple Formats (Published)*
5. *Managing Access Credentials for a Service Provider (Published)*
6. *Clock-Synced Transient Encryption (Pending)*
7. *Voice Transaction Gateway (Published)*
8. *App-Initiated Voice Transaction (Published)*
9. *Cross Account Access for a Virtual Personal Assistant via Voice Printing (Published)*

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. Srivastava, D., Kaur, G., Singh, G., & Singh, P. (2020). Evaluation of Atmospheric Detrimental Effects on Free Space Optical Communication System for Delhi Weather. *Journal of Optical Communications*.
7. Narang, S., & Singh, P. Comparison of Results of PID and Fuzzy Control of Two Linked Rigid Manipulator.

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.
7. Pahuja, S., Singh, G., & Singh, P. Real-Time Crop Monitoring in Agriculture. In *Artificial Intelligence and IoT-Based Technologies for Sustainable Farming and Smart Agriculture* (pp. 230-242). IGI Global.

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