

Contact

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Top Skills

Leadership
Data Analysis
Human Rights

Languages

Russian (Elementary)
Hindi (Professional Working)
English (Professional Working)

Certifications

Project Management Professional
(PMP)®
UGC NET- Labour Welfare/PM/Lab
& Social Welfare/ HRM
Certified Energy Manager(CEM)®
IT Information Library Foundations
Certification (ITIL)
Certified Solutions Architect –
Associated

Honors-Awards

Raksha Mantri Trophy for Most
Promising Cadet during cadets
training in Naval Academy
Admiral Katari Trophy for Best
All Rounder during Bachelor of
Engineering course
Admiral Ramnath Trophy for Best
All Round officer during Electrical
Specialisation course

Santosh Kumar, CISA, PMP

Senior Architect- Cyber Security at Robert Bosch Engineering and
Business Solutions Private Limited
Bengaluru

Summary

- Leader with 20 years of versatile experience in Project Management, Data Science/ML/AI, System and Software Integration, Cyber Security, IoT, Cloud Security. Adept in using technology for easy solutions.
- IT security specialist with a passion and talent for aligning security architecture, plans, controls, processes, policies and procedures with security standards and operational goals. Proficient in managing & leading teams for running successful process operations & experience of implementing procedures, for organisational excellence.
- Project Management for Development of software based Combat Management Systems(CMS). Leading a cross functional team of 200+ developers and testers. This project is a flagship program of “Make in India” initiative. Overall responsible for the successful initiation, planning, design, execution, monitoring, controlling and closure of a project.
- As AWS Solution Architect, understanding and implementation of cloud infrastructure i.e. VMs, Storage, Databases, Networks etc. with specific recommendations on server, load balancing and implementing through automation as per guidelines defined by AWS.
- Experience of implementing Agile/Scrum values, ITILv4, DevOps, Six Sigma towards process improvement and enhanced efficiency in product and processes.
- Working knowledge of scripting software i.e. Python, R, MySQL, C ++. Python and packages including NumPy, SciPy, Pandas, Scikit etc. Use of R libraries including Dplyr, Ggplot2, Caret etc. Expertise in Big Data, Hadoop, Spark, Hive.

Publications

Communication Superiority- The need of the Hour

HR Analytics to improve decision making process

- Understanding and effective implementation of structured approach for application of Classification Algorithms, Deep Learning, NLP, Reinforcement Learning and Graphical Models. Extensively working on Algorithms like Linear & Logistic Regression, Clustering, SVM, Decision Trees, Time Series, Artificial Neural Networks (ANN), Associated Rule Mining(ARM).

- Gold Medallist in Engineering and other specialisation courses.

Experience

Bosch

Senior Architect Cyber Security

September 2019 - Present (1 year)

Bengaluru Area, India

Robert Bosch Engineering And Business Solutions Limited

Government of India

Indian Navy Veteran

August 2019 - September 2019 (2 months)

India

Indian Navy

24 years 7 months

Senior Manager, Naval Dockyard(Mbi)

August 2016 - July 2019 (3 years)

Mumbai Area, India

- Leverage organisation expertise to understand and prioritize solutions by analysing cost and benefits of deploying algorithms. Ability to bridge gaps and derive valuable information from vast amount of data resources, enabling management with the most current and up to date Data & Intuitive Analytics. Managing and using historical data to do accurate prediction and better decision making.
- Evaluate the performance of data analysis algorithms as well as general ability to select and apply algorithms to meet application requirements with respect to performance and quality of the output.

- Demonstrated expertise in driving change within complex matrix organizations by leveraging effective leadership, communication, analytical thinking, problem solving, conflict resolution & decision-making skills.
- Effectively led and managed cross functional teams across geographies to drive decisive solutions for realizing lasting value propositions & relationships through sustained stakeholder engagements.
- Implementation of Scrum values, to emphasize teamwork, accountability and iterative progress toward a well-defined goal to faster market times, greater flexibility, higher quality products, and customer satisfaction.
- Implemented Six Sigma, with data-driven approach and continuous improvement methodology for eliminating defects in a product, process and services. Used data-driven quality strategy for improving processes, using DMAIC (Define, Measure, Analyse, Improve, and Control).
- Understanding and effective implementation of structured approach for application in Classification Algorithms, Deep Learning, NLP, Reinforcement Learning and Graphical Models.
- Unleash the potential value of data for better visibility, enabling Innovative and intuitive decisions. Enabling usage of large data set for data mining and analysis Innovative Information insight.

CTO/ Chief Engineer of a frontline Warship/ Guided Missile Frigate, INS Talwar

July 2015 - August 2016 (1 year 2 months)

Mumbai Area, India

- As Head of Department ensured maintenance and 100% continuous operational availability of all ship borne electrical equipment.
- As part of Command Team (Head of Electrical Department), effectively planned, led, motivated and managed operations, training and resources (07 officers and over 100 Technical Sailors), to meet the ship's Operational commitments, Missions, Deployments and Exercises.
- IT security specialist with a passion and talent for aligning security architecture, plans, controls, processes, policies and procedures with security standards and operational goals. Proficient in managing & leading teams

for running successful process operations & implementing procedures, for organisational excellence.

- Responsible for Penetration Testing, Vulnerability Assessments, Security Audit, Incident Response, BCP/DRP, Network Security, Troubleshooting, Configuration Testing, Risk Analyses and Security Assess-ments. Responsible to determine most effective way to protect computers, networks, software, data and information systems against any possible attacks.
- Ensured secure, robust infrastructure systems, including ISMS, DNS, email, VPN, firewalls and enterprise authentication by performing efficient troubleshooting. Conducted computer security audit of approx. 800 PCs and Penetration Testing for around 20 networks.
- Enabling usage of large data set for data mining and analysis Innovative Information insight.
- Leverage organisation expertise to understand and prioritize solutions by analysing cost and benefits of deploying algorithms in production environments. Ability to bridge gaps and derive valuable information from vast amount of data resources, enabling management with the most current and up to date Data & Intuitive Analytics. Managing and using historical data to do accurate prediction and better decision making.

Joint Director / Project Manager (Combat Management Systems),
Project Management Group(CMS)/ IHQ MoD
January 2012 - July 2015 (3 years 7 months)
New Delhi Area, India

- Project Management for Development of State of Art software-based Combat Management Systems (CMS) fitted onboard various class of ships, including Aircraft Carrier of Indian Navy. CMS being one of the biggest projects in Asia with over four million Lines of Codes (LoC) and involvement of multiple stakeholders. System is presently being exploited across all new ships. This project is a flagship program of “Make in India” initiative.
- Project Management for development and induction of SDN (ATM and Ethernet based Ships Data Network (SDN)) on frontline warships. Critical Design Reviews, System Integration, IV &V and coordination of project timelines with global project partners as per SDLC IEEE 12207 standards.

- Efficiently deployment of Data Distribution Service (DDS)/Prismtech for real-time systems to enable scalable, dependable, high-performance data exchanges using a publish-subscribe pattern; bringing down project timelines.
- IBM Rational Rhapsody for modelling environment, in server-client configuration for systems engineering and software development for real-time system. Ensured efficient collaborative design, development and test environment for CASE. It was used starting from System requirements stage (SyRS) to FID/IRS/SQT/Coding/Testing/ Deployment of the system.
- Use of Constructive Cost Model (COCOMO) for software cost estimation and baselining configuration.
- Implemented Six Sigma, a statistical-based, data-driven approach and continuous improvement methodology for eliminating defects in a product, process or service. Used data-driven quality strategy for improving processes, using DMAIC (Define, Measure, Analyse, Improve, and Control).
- Implementation of Scrum values, to emphasize teamwork, accountability and iterative progress toward a well-defined goal to faster market times, greater flexibility, higher quality products, and customer satisfaction.
- Implementing DevOps process to streamline and accelerate development.

CTO/ Chief Engineer of a frontline Warship/Indigenous Missile Corvette, INS Khanjar

April 2010 - January 2012 (1 year 10 months)

Vishakhapatnam Area, India

- As head of the department, managed a department of 65 sailors and 04 officers with specific responsibility to maintain Navigation, Communication, Information Technology, Power Generation and Distribution, Guns and Missile systems.
- Led 65 personnel team to successfully plan and control complete Ship's Repairs and Rebuild, Operations and Maintenance, HR, Supply Chain and Inventory to meet all invaluable Critical Mission Deployments and Joint Exercises with several Foreign Navies
- Got the 'Best Fleet Ship' award for proving to be a vital differentiating asset in fleet exercises, by motivating and team building, to deliver under harshest work environment and challenging situations.

- Guided the strategic transformation process by planned upgrade of satellite communication, Navigation of the ship.
- Managed operations, repairs, product and maintenance support for the Electrical, Electronics, Gyro & Nav aids, Communication and Weapon Systems/ equipment installed onboard the ship.
- Closely monitored the performance and failure analytics of ships weapon systems leading cost savings of USD 10M \$.
- Headed product life cycle management of ship's weapon systems and conducted overhaul of the ship's missile system. Successful conducted missile firing of the system.
- Analysed a capability gap and drafted a guidance document on 'Analysis of results for missile and gun firings'.
- Strategic Planning, coordination and successful completion of a 08 Month Refit (Overhaul) of the ship by actively coordinating with multiple project teams and extensive coordination between multiple agencies of the Indian Navy and the Industry

Senior Staff Officer(Training Design & Evaluation)

May 2008 - April 2010 (2 years)

Jamnagar Area, India

- As Senior Staff Officer, Training Design and Evaluation, responsible for preparation of Annual Training Plan(ATP) in line with the Cadre Training Programme and National Training Policy.
- Conduct of Training Need Analysis (TNA), to identify "gaps" between current performance and department/organizational objectives.
- Implementing training programs and materials, evaluate trainee's performance, assess training needs and help other HODs to handle training problems.
- Regular interaction with Cochin University/AICTE for award of Degree/ Diploma. Continuous revision/updated of syllabus/LPs for various courses.

- Publishing/Editorial team for yearly magazine Rozi Light and conducted National Level Defence Seminar on 'Communication Superiority'. Conducted numerous QIP(Quality Improvement Programs)/Seminars.
- Automation/computerization of Result Section which helped in timely completion of results for various courses. Performance monitoring and periodic auditing for ensuring effectiveness of implemented automation exam and result system.
- Review & update SOPs(Standing Operating Procedures) and guidelines for training documentation.
- Monitor & audit compliance with in vogue procedures / practices and Information security requirements.
- Establishing constructive feedback mechanism from Instructors/Trainees

Training and Acceptance Trials at Saint Petersburg, Russian Federation

December 2007 - May 2008 (6 months)

Saint Petersburg, Russian Federation

- Advanced Training Course as Repair Engineer on Planning & Procedures for repair of Electrical Machine and Devices at State Scientific Centre of Russian Federation, Saint Petersburg, Russia
- Deputed to Russia for Training and acceptance trials of Weapons/ Sensors for extended Talwar class of ships.

Senior Instructor

June 2007 - December 2007 (7 months)

Jamnagar Area, India

- Awarded Best Instructor in 2008.
- As Senior Instructor, trained and certified officers, under-trainees, and sailors in Electrical and Electronics systems and guided various Projects/Technical Lectures of student Officers.
- As Instructor, took subjects for Communication Theory, Digital Communication, Satellite Communication, RADAR and Signal Processing for Officers towards MSC Degree.

- Team Member for FATs(Factory acceptance Trials) toward Inspection, technical and field evaluation, quality assurance and acceptance trials of new induction electronic and communication equipment into the Navy.
- Design and development of a Fibre Optic and Satellite Communication Lab.

Masters at IIT, Madras

May 2005 - June 2007 (2 years 2 months)

Chennai Area, India

Assistant Electrical Officer (Navigation, Direction and Communication)

July 2002 - May 2005 (2 years 11 months)

INS Mumbai, Mumbai

- As Assistant Electrical Officer(Navigation, Direction and Communication), successfully led a young team of 35 sailors in operations and deployments.
- Ensured high standards of maintenance and operational availability of all Radar, Sensors and Communication equipment at all times.
- Engineered Skill & Process integration between Legacy & New Generation systems for sustainable operations
- As IT in-charge, maintained IT infrastructure, with a passion and talent for aligning security architecture, plans, controls, processes, policies and procedures with security standards and operational goals.
- Training and expertise development to Lead change and transformation to next generation sensors and electronics.
- Efficient Inventory Management of over 6000 SKUs pertaining to Navigation, Direction and Communication equipment and saved over \$0.6Mn by identifying and cancelling spurious demands and orders raised on Material Organisations

Training Officer

January 1999 - July 2002 (3 years 7 months)

Mumbai Area, India

Competency on board frontline warship INS Mysore

Midshipman

July 1998 - January 1999 (7 months)

Pune Area, India

Midshipman

Sea Cadet

January 1998 - July 1998 (7 months)

Cochin Area, India

On-board INS Tir

Cadet

January 1995 - January 1998 (3 years 1 month)

Goa

55 Naval Academy Course

Education

Indian Institute of Technology, Madras

Master of Technology (MTech) Communication, Electrical, Electronics and Communications Engineering · (2005 - 2007)

International Institute of Information Technology – Bangalore

Post Graduation Diploma in Data Science, Data Science · (2018 - 2019)

Indian Institute of Management, Indore

Six Months Certificate Course in Business Management, Management Information Systems, General · (2018 - 2019)

Cochin University of Science and Technology

Electrical Specialisation Course , Electrical and Electronics Engineering · (2001 - 2003)

Symbiosis Institute of Management Studies

Post Graduation Diploma in HRM, Human Resources Management/Personnel Administration, General · (2016 - 2018)