

SONAM (SAM) THARKAY

Clearance: Top Secret Clearance
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Willing to Relocate: No

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% Willing to Travel: 75%

EXPERIENCE SUMMARY

Experienced Cloud Architect and Technical Lead with a solid foundation in IT systems, cloud infrastructure, and solution design. Demonstrated success in leading secure, scalable infrastructure programs in Agile environments. Proven track record of delivering enterprise cloud migrations, overseeing 24x7 system operations, and ensuring compliance with federal (NIST, DoD) and industry standards. Skilled in technical leadership, stakeholder collaboration, sprint execution, and applying systems-level thinking to solve complex technical challenges and align IT solutions with business objectives.

SKILLS, TOOLS, AND TECHNOLOGIES

Cloud Platforms & Services:	AWS (EC2, S3, ELB, Lambda, IAM, CloudWatch), AWS GovCloud/Commercial
Programming & Scripting	HTML, CSS, BASH, Python
DevOps & Collaboration Tools:	Agile, Ansible, CI/CD, GitLab, Jira, Confluence, ServiceNow, Slack
Infrastructure & OS	Linux (RHEL), Windows Server, VMWare Workstation, Oracle VirtualBox
Modeling & MBSE	MagicDraw/Cameo, SysML, IBM DOORS, MATLAB, SolidWorks, Siemens NX
Productivity Software:	Microsoft Exchange, SharePoint, Office Suite, GanttProject

COMPETENCIES

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| <ul style="list-style-type: none">• Cloud Engineering• Infrastructure Strategy• Security & Compliance• Cross-Functional Team Leadership | <ul style="list-style-type: none">• Systems Engineering• Systems Integration• System Administration• Risk Management | <ul style="list-style-type: none">• Program Management• Agile & Scrum Leadership• Vendor Management• Regulatory Compliance |
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EDUCATION

Master of Engineering in Systems Engineering – Cornell University, 2022
Bachelor of Engineering in Engineering Science (ABET-accredited) – Stony Brook University, 2019

CERTIFICATIONS AND DIGITAL BADGES

AWS Certified Cloud Practitioner	2024
CompTIA Security +	2024
Computation and Data Science	2022
INCOSE – ASEP	2022
Private pilot Ground School	2023
AWS Solutions Architect	Expected Q3 2025

EXPERIENCE DETAILS

Booz Allen Hamilton, Inc.	2024 – Present
Booz Allen Hamilton – Integrated Environment Cloud Architect	Jul 2024 – present
<ul style="list-style-type: none">• Designed and deployed secure cloud-based solutions in AWS, ensuring system availability, fault tolerance, and alignment with enterprise architecture and agency requirements.	

- Led solution architecture for cloud-hosted digital engineering tools, integrating AWS services (EC2, S3, ELB, IAM) to meet stakeholder needs and compliance requirements.
- Facilitated Agile ceremonies, sprint planning, and backlog prioritization across cross-functional teams to drive delivery using Atlassian tools (Jira, Confluence).
- Supported 24x7 availability and performance of model-based application tools provided as Platform-as-a-Service (PaaS), overseeing infrastructure and database servers to ensure seamless operations and high availability.
- Enforced cloud governance, security, and compliance by evaluating and implementing STIG benchmarks, ensuring alignment with organizational and regulatory standards.
- Developed and presented user reports to senior leadership by extracting data from PostgreSQL and visualizing insights using Power BI.
- Supported the migration of EC2 instances and database servers to a new AWS region by capturing snapshots, creating AMIs, and redeploying resources, ensuring end-user access via AWS Workspaces.
- Provided support to end users by resolving complex technical issues through ServiceNow incident tickets and participating in on-call rotations during core business hours, ensuring minimal downtime and high user satisfaction.

Booz Allen Hamilton – F-35 Joint Program Office | Technical Lead

Jan 2024 – Jul 2024

- Led Agile ceremonies (daily standups, sprint planning, retrospectives) and acted as de facto Scrum Master to drive alignment, remove blockers, and ensure delivery across IT and cloud initiatives supporting Digital Engineering efforts.
- Drove the development and optimization of engineering tools, enhancing project performance.
- Managed the AWS Cloud platform to integrate new applications, software, and platforms to foster Digital Engineering thread.
- Spearheaded initiative planning and problem-solving efforts, streamlining processes and resolving technical challenges.
- Maintained continuous interface with vendors, subcontractors, and clients, aligning project goals with client requirements, and fostering strong relationships.
- Mentored engineers and onboarded team members, fostering knowledge sharing and ensuring team delivery excellence.

The Boeing Company

2019 – 2024

Boeing – Maritime & Intelligence Systems | Systems Engineer II

Jun 2022 – Jan 2024

- Maintained Boeing Product System in a Linux-based environment, performing troubleshooting, configuration updates, and ruleset testing.
- Contributed as a DevOps team member, supporting Linux and networking SME in the development of infrastructure solutions.
- Built and developed a new Boeing Product System in a Linux environment based on customer requirements and using Model-Based System Engineering (MBSE) approach, involving cross-functional interaction with security and supply chain teams.
- Led the COTS (Commercial off the Shelf) Team in identifying and collecting necessary documents for writing Technical Manual Documents for the ORCA (autonomous underwater vehicle) Project, using JIRA and Confluence.

Boeing – Engineering Career Foundation Program [Rotational Program]

2020 – 2022

Boeing Test & Evaluation, 737-10 Max Program | Flight Test Engineer Ops

Jan 2022 – Jun 2022

- Managed and authorized the flight test airplane configuration, assessed and led resolution of discrepant systems, structures, and tracked airplane weight & CG during flights.
- Provided mission support; reviewed and integrated TOL's /Advisories, planned Ops aspects of test modules and remotes, reviewed integrated Flight Configuration's and associated planning, created/released work requirements SOW's & Events, and supported FAA conformity tasks.

Boeing – H-47 ER Req. Team Servicing the United Kingdom | Systems Engineer

Jul 2021 – Dec 2021

- Planned and developed Verification Data Sheets (VDS) using IBM Rational DOORS tool for verification purposes.
- Coordinated with Subject Matter Experts from various engineering disciplines to gather information and complete VDS.

Boeing – Tooling Rapid Action Change Cell Team | Tooling Design Engineer**Jan 2021 – Jul 2021**

- Executed an iterative design-build-test process to create working prototypes utilizing NX, MES, and Insight (Slicing Software).
- Innovated to reduce Safety, Quality, Cost, and Schedule risks using Additive Manufacturing & Rapid Fabrication techniques.
- Designed and fabricated a prototype magnetic corner protector to prevent workplace injuries, resulting in estimated \$10,000 cost avoidance per incident. Implemented across Payload Handling Fixtures (PHF) to enhance operator safety.

Boeing – P-8 Training Systems | Systems Engineer**Jul 2020 – Dec 2020**

- Developed documentation and training for the application of Infrastructure-as-code tools and techniques for Automation.
- Performed verification and validation process to automate the cold start of Weapons Tactic Trainer.

Boeing – F/A18, Forward Fuselage Structure | Manufacturing Engineer**Jun 2019 – Jul 2020**

- Supported the production of major assemblies such as Lower Mid, Nose Barrel and Pulse Line for F/A18 program.
- Utilized problem solving skills to address critical issues that affect the production of the aircraft.
- Implemented planning changes, MBI's and tool orders to ensure the assemblies are built with the most efficient & effective process.

PROJECTS

Cloud Resume Challenge (In Progress)

- Building a full-stack cloud-based resume application to demonstrate hands-on proficiency with front-end, back-end, and cloud services.
- Developed a static website using HTML, CSS, and JavaScript to host resume content on Amazon S3
- Integrated AWS CloudFront for CDN distribution and HTTPS using a custom domain and SSL via AWS Certificate Manager.
- Implemented a serverless backend using AWS Lambda and API Gateway to track page visits stored in DynamoDB.
- Configured IAM roles and policies to secure interactions between services.
- Next steps: Automate infrastructure with Terraform and CI/CD pipeline via GitHub Actions.

Transonic Truss Braced-Wing -1g | Aerospace Engineer**Jan 2022 – Jun 2022**

- Explored the potential benefits and challenges of the truss replacement concept using the TTBW demonstrator 1117-006 configuration as a baseline, proposing an ECFP capstone project to determine its feasibility for future study.
- Conducted analysis and trade studies to estimate drag reduction and weight savings, resulting in a predicted total fuel savings of 4.3% by combining a 9.5 drag count decrease and 1970 lbs. of structural weight savings, with higher anticipated savings for a TTBW analysis at a targeted cruise range of ~3000nmi.

Sustainable Education Project (UWS-Nepal) | Systems Engineer**Aug 2021 – May 2022**

- Worked with United Worlds Schools Nepal (UWS-Nepal) to design and build a primary school that teaches children about modern sustainable technology by implementing and demonstrating these technologies in the built environment.
- Utilized a system engineering approach to lead the human-centered design endeavor, organized the team, and integrated sustainable strategies such as solar energy and rainwater harvesting into the infrastructure.

AWARDS AND HONORS

Boeing Accomplishments Award: For supporting 3P event for focus on Safety & Quality improvements	2020
Academic Achievement Award: Presented by the State University of New York Office of Opportunity Program	2019
The Robert James leadership Award: Received from Stony Brook University	2018
Dean's List: Achieved academic excellence in consecutive years	2015 - 2017