

# Xinyu Tu

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- Phone: **No cold call, please email JD with compensation first**
- Current Location: North Brunswick, New Jersey, USA
- Work Authorization: **USA Citizen**

## Objective & Summary

Bringing over two decades of IT infrastructure experience, I have consistently excelled in IT solution design, IT service delivery, and project management within large global enterprises, including prominent financial institutions. My role as an Infrastructure and Cloud Architect is underscored by my core competencies in architecting solutions, hands-on infrastructure implementation, and the successful management of IT programs and projects from inception to completion, with a personal commitment to on-time, cost-effective delivery.

My career has thrived in a global team matrix environment, where I've demonstrated adept team management and provided effective leadership. As a seasoned facilitator of communication between business and technical teams, I possess the ability to translate complex business requirements into functional requirements and practical approaches for IT professionals.

## Technical Expertise

### Cloud Architecture & Services

- AWS: EC2, VPC, S3, Route 53, CloudFront, IAM, CloudWatch, Lambda, Elastic Beanstalk, ELB, API Gateway, RDS, DynamoDB, Redshift.
- Azure & GCP: Azure AD, Azure Functions, App Services; Google Cloud Platform (Compute Engine, Cloud Storage, BigQuery); Oracle Cloud Infrastructure (OCI).
- Cloud Best Practices: AWS Well-Architected Framework, Microsoft Cloud Adoption Framework.

### Frontend Development

- Languages & Frameworks: JavaScript, Angular, HTML, CSS
- Tools & Libraries: Bootstrap, React

### Backend Development

- Languages: Python, Node.js, Java, .NET (C#), NestJS
- Frameworks: Express.js, Spring Boot, Flask, .NET Microservices architecture
- APIs: RESTful APIs, API Management (AWS API Gateway, Azure API Management)
- Serverless: AWS Lambda, Azure Functions

### DevOps & Automation

- CI/CD: Jenkins, Azure DevOps, GitHub Actions, Vercel
- Containers & Orchestration: Docker, Kubernetes
- IaC: Terraform, CloudFormation, Ansible

### Database Management

- RDBMS: PostgreSQL, MySQL, MS SQL Server, Oracle
- NoSQL: MongoDB, DynamoDB, Redis, Elasticsearch

### Networking & Security

- Networking: TCP/IP, DNS, SSH, VPN, Load Balancing, Nginx
- Security: IAM, SSO, SAML, OKTA, LDAP, OAuth 2.0, SSL/TLS, WAF

### Infrastructure & Virtualization

- VMware ESXi, vSphere, vCenter, Citrix XenApp
- Dell, IBM, HP Servers, Cisco UCS, NetApp, EMC VNX

### Project Management & Collaboration

- Jira, Confluence, Visio, Lucidchart, MS Office
- Agile (Scrum, Kanban)

### AI / ML / Big Data

- Model Deployment: AWS SageMaker, Azure ML, TensorFlow, PyTorch
- Big Data: Hadoop, Apache Spark, Kafka, BigQuery, AWS Redshift

### Certifications

- AWS Certified Solutions Architect – Associate

- VMware Certified Professional (VCP)
- Citrix CCA

## Professional Experience

10/2022 – Present

Cloud Solution Architect, DevOps Consultant

Blackrice Tech. New Jersey, USA

- Undertaking Cloud Architect and DevOps projects.
- Manage Firm's Linux, Windows servers and desktops. Troubleshoot, resolve issues, enhance control and gain visibilities. Implement security controls.
- Manage Configuration Management. Analyze state of Linux servers/workstations, simplify config to Ansible code from scratch.
- Manage terraform code for AWS cloud resources.
- Utilize, manage and troubleshoot issues around containers, Kubernetes, Jenkins, CICD.
- Design and create tools to manage and gain visibility of digital assets by leverage available APIs in Azure, AWS, Solarwind, VMWare, Microsoft AD. Utilize SDK, CLI available for Python or Shell. Streamline processes by automating repetitive tasks.
- Performed regular system audits to identify areas of improvement in performance, security, or compliance standards.
- Implemented best practices in change management to minimize disruptions during critical system updates.
- Utilized AWS resources include EC2, S3, AWS CloudWAN, AWS VPC, AWS Transit Gateway, AWS, Transfer Family AWS CloudWatch, CloudTrail, VPC endpoints.
- Designed and developed a 3 tier web base application. Using Javascript and Node.js
- Designed and implemented secure, scalable microservices using .NET Core , Angular and Python.
- Built the front-end interface using Javascript, HTML, CSS, providing an intuitive and interactive user experience.
- Utilized Node.js and Java and to create the back-end service, handling user requests, data storage, and file uploads. Integrated MongoDB as the database. Serverless via Vercel.
- Integrated AWS, Azure, GCP and OCI cloud services to provide reliable infrastructure for the application.
- Development in Python. Deploy AI model training via Jupyter Notebook and cloud. Research new AI tools.
- Utilized Git and GitHub for version control, enabling collaborative development.

October 2018 – October 2022

Cloud Solution Architect

Tata Consultancy Services (TCS), Edison, NJ, USA

- Collaborated with clients to formulate IT strategies, digital transformation plans, and comprehensive assessments.
- Architected AWS core environments, including Virtual Private Clouds (VPC), subnets, account structures, and security protocols.
- Designed Azure landing zone architectures and solutions tailored to client needs.
- Pioneered on-premises to cloud migration roadmaps, presenting 6-R migration strategies that encompassed Lift & Shift/Rehost, replatform, and refactor approaches along with thorough application and infrastructure assessments.
- Automated application stack deployments using CloudFormation, AWS CodeCommit, CodeBuild, and Service Catalog.
- Played a vital role within the TCS Cloud and Microservice delivery team, meticulously designing and deploying application architectures and microservices, involving API, Docker, Spring Boot, MySQL, Redis, and more.
- Developed applications with APIs using JavaScript, Python Flask, and MongoDB.
- Spearheaded cloud migration and automation initiatives, including deploying TCS ADD Safety Data Analytics solutions in AWS.
- Established infrastructure as code (IaC) through Terraform and CloudFormation, ensuring efficient cloud foundation creation in the landing zone.
- Collaborated with DevOps teams, actively engaging in continuous integration/continuous deployment (CI/CD) pipelines through Azure DevOps and Jenkins.
- Orchestrated successful application migrations, deploying application stacks with precision using Terraform and CloudFormation.
- Provided innovative solutions to clients, encompassing DevOps, big data, and AI.
- Defined cloud system requirements for Car to Cloud and IoT implementations.

03/2018- 09/2018

AWS Architect

Wipro, Bonita Spring, FL, USA

- Designed, implemented, and maintained AWS environments.
- Managed EC2, S3, EBS, EFS, VPC, IAM, Route53, CloudWatch, SNS, RDS, Lambda, ELB, CloudFormation, and more, along with AD, DNS, MFA (DuoMobile), and other critical components.
- Collaborated with customer application teams, providing support, release management, change management, and incident resolution using ServiceNow.
- Led offshore delivery teams to ensure timely and effective AWS environment implementation, support, development, system integration testing (SIT), user acceptance testing (UAT), and post-production support.
- Deployed Docker and Kubernetes for full-stack applications.
- Implemented DevOps automation using Jenkins, Github, Cloudformation, Ansible, Chef, and configured Jenkins pipelines.
- Setup and managed RDS instances, migrating legacy Oracle databases to MySQL in RDS, and optimizing database performance.

07/2015- 02/2018

Cloud Architect

CNYD, Shenyang, China

Designed and implemented cloud and IT infrastructure solutions, supporting hybrid cloud deployments and ITSM practices. Assisted in AWS migrations, configured key services (EC2, VPC, S3, etc.), and collaborated on Manufacturing Execution Systems (MES) projects. Led IT strategy development for industrial IT solutions.

05/2013- 06/2015

Infrastructure Architect, Manager

VOLVO Group, Beijing, China

Designed and managed IT infrastructure, focusing on VMware, AWS, and automation tools. Led a major server migration project, coordinated global IT operations, and worked closely with development teams using Agile methodologies. Managed IT asset audits and infrastructure standardization.

11/2012 – 04/2013

Infrastructure Architect

Envision Energy Limited, Shanghai, China

Built and managed cloud infrastructure using AWS and VMware. Developed solutions for North American clients, integrated cloud databases, and worked on OpenStack and Hadoop-based cloud projects.

05/2012 – 09/2012

Sr. System Engineer/ Tech Lead

Active Network, Dallas, TX, US and Shanghai, China

Led China operations and system administration teams setup and training. Managed large-scale IIS web servers, supported production releases, and oversaw a major data migration project.

05/2010- 11/2011

Senior System Engineer

JP Morgan Chase, Jersey City, NJ, USA

Managed large-scale IT infrastructure, leading VDI migration for 50,000+ users. Oversaw major data migrations, implemented SQL Server solutions, and worked with EMC and NetApp storage systems.

06/2009-12/2009

Sr. System Engineer

HP/Avaya, Basking Ridge, NJ, USA

Led multiple data center migration projects, designed server migration strategies, and evaluated new technology solutions for high-availability environments.

10/2007 – 05/2009

Sr. System Engineer

Bank of New York, Florham Park, NJ, USA

Managed IT infrastructure and data center operations, led server migrations, implemented VMware solutions, and optimized SQL Server clustering.

03/2005 – 10/2007

Sr. Systems Administrator

UBS Financial Services, Weehawken, NJ, USA

Provided 24/7 IT infrastructure support, managed Active Directory, optimized data center operations, and led large-scale IT compliance audits.

01/2001 – 03/2005

Sr. System Administrator

MarketRx Inc., Bridgewater, NJ, USA

Built and managed IT infrastructure from the ground up. Designed network environments, implemented Active Directory, Exchange, and backup solutions, and supported enterprise applications.

## Education and Certifications

### *Education:*

City University of Seattle (USA)

Degree: Master of Business Administration (MBA)

Website: <https://www.cityu.edu>

Beijing University of Technology (China)

Degree: Bachelor of Science in Engineering (5-year program)

Major: Precision Mechanical and Optical Instruments

Website: <https://english.bjut.edu.cn>

### *IT Certificates:*

Amazon Cloud: AWS Solution Architect Associate, AWS-SAA

VCP: VMware vSphere 5.0

MCSA/MCSE: Messaging for Windows 2000, MCSE for NT 4.0, MCP+I. MCP ID: 1243958

CCA: XenApp 5.0

### *Other:*

Runner, full marathon 3:42:45 (London Marathon 2023).

Go (Weiqi) player, US Champion(2020), 3 times the United States representative