

XUSHENG (FRED) LIU

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EDUCATION

CARNEGIE MELLON UNIVERSITY

*Master of Business Administration - **MBA** (Tepper) & Master of Software Engineering - **MSE** (SCS)*

Pittsburgh, PA

Dec 2028

- Dual-degree program combining business strategy with advanced software engineering.

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Bachelor of Science in Computer Science & Mathematics (Double Major)

GPA: 3.50/4.00

Terre Haute, IN

May 2021

- Minors: Entrepreneurial Studies, Data Science
- Relevant Coursework: Data Structures & Algorithms, Machine Learning, Artificial Intelligence, Deep Learning, Database Systems, Optimization, Computer Architecture, Time Series, Mathematical Modeling, Graph Theory, Software Requirement Engineering, Agile Development

EXPERIENCE

CITRIX BUSINESS UNIT · CLOUD SOFTWARE GROUP

Fort Lauderdale, FL & Nanjing, China

Senior Software Engineer

Sep 2025 – Aug 2026

- **Automation:** Designed and implemented automated Terraform configuration generation for existing customer environments, including Blackrock and Barclays, eliminating all their manual provisioning overhead and allowing them to quickly redeploy their production environment in disaster recovery situations.
- **Product Management:** Led design and development of the billing and cost-prediction system for Citrix Platform Flex, the next-generation managed desktop platform leading to allow Citrix's S&P 500 customers, such as the Sailing Group and Wipro, to have the versatility to deploy remote working environment any of Azure, AWS, and GCP platform with minimum configuration to satisfy their needs at minimum cost.
- **Product Optimization:** Maintained and extended core services, ensuring high availability and smooth feature evolution across product lines.

Software Engineer II

Jan 2023 – Aug 2025

- **Multi-Cloud Development:** Developed cloud-native solutions for Citrix DaaS on Azure, AWS WorkSpaces Core, and GCP, expanding multi-cloud support for enterprise customers including Greenberg Traurig LLP, Mastercard, and etc.
- **Design and Development:** Led design and development of IaC tooling, including the open-source Terraform Provider for Citrix across on-premises and cloud environments.
- **Security & Compliance:** Drove security hardening that achieved FedRAMP (Federal Risk and Authorization Management Program) Moderate certification; currently leading the roadmap toward FedRAMP High, which is the security authorization level for cloud services handling the government's most sensitive unclassified data.
- **Applied AI:** Prototyped an LLM-based log-analysis tool to surface potential product defects. My prototype inspired the product security teams to integrate AI into product artifact scans before deploying them.

CITRIX SYSTEMS, INC.

Fort Lauderdale, FL

Software Engineer

Jul 2021 – Dec 2022

- **Full-Stack Development:** Built backend and frontend features for Citrix Virtual Apps and Desktops and DaaS Standard for Azure, improving efficiency and security by eliminating over 200 bugs.
- **Platform Modernization:** Led migration of three major projects from .NET Framework 4.8 to .NET Core 5 (later .NET 9), improving long-term maintainability and performance by over 50%. The migration also ensured cross-platform compatibility instead of requiring Windows environment, which allows an 80% cost reduction.
- **Monitoring & Tooling** Automated Splunk alerts and dashboards and built internal tools for monthly customer-bill validation and product-health monitoring. Engineers in Citrix are now relying on this tool to build dashboards with code efficiently without accessing the Graphic UI.

SKILLS & ADDITIONAL INFORMATION

- **Certifications:** Microsoft Certified — Azure Solutions Architect Expert (AZ-305), Azure Administrator Associate (AZ-104), Azure Fundamentals (AZ-900), Azure AI Fundamentals (AI-901).
- **Publication:** Wollowski, M., Chen, L., Chen, X., Cui, Y., Knierman, J., & Liu, X. (2021). "Engineering Context from the Ground Up." In Systems Engineering and Artificial Intelligence (Springer).
- **Programming:** Java, C#, Python, JavaScript/TypeScript, C, SQL, HTML/CSS, Go, R **Frameworks:** .NET / .NET Core, Vue.js, Angular, Flask, MVC **Cloud & Infrastructure:** Azure, AWS, GCP, Terraform, IaC, FedRAMP, Ansible, Bicep **Tools:** Git, Splunk, TeamCity, MongoDB, REST APIs, Unit & Integration Testing, PowerShell **AI/ML:** LLM-assisted Development, Prompt Engineering, NLP, Machine Learning, Agents **Natural Languages:** Mandarin Chinese (native), English (fluent), German (basic).
- **Interests:** Software Engineering, Product Management (Technical), Marketing, Operations, Engineering Management