

Erica Tomes

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Summary

Experienced Software Engineer with expertise in networking, distributed systems, and client/server architectures. Delivered high-impact solutions including automated workflow services, device/application redirection, and automation tools. Recognized for solving complex technical challenges and contributing across multiple domains to drive product success.

Education

- **University of Louisville, J.B. Speed School of Engineering** 2017–2018
– Master of Engineering, Computer Engineering & Computer Science
- **University of Louisville, J.B. Speed School of Engineering** 2013–2017
– Bachelor of Science, Computer Engineering & Computer Science

Professional Experience

Citrix Jan 2019 – Aug 2020

Senior Software Engineer (2020)

Software Engineer II (2019–2020)

- Delivered **3.95×** performance gains in COM redirection, supporting **\$1.5M** revenue renewal
- Designed and Built WIA scanner-redirection as founding team engineer
- Resolved numerous platform defects across device and application virtualization
- Served as SME for USB redirection, UWP applications, DPI matching, and WIA Redirection
- Gained extensive experience with WinDBG, Windows kernel drivers, COM, and virtualization

Amazon Web Services (AWS) Aug 2020 – Nov 2021

Software Development Engineer II (2021)

Software Development Engineer I (2020–2021)

- Designed and delivered large-scale workflow and automation services used across AWS products
- Built feature to allow suspend/resume of long-running workflows
- Developed the Managed Resources Service supporting resource provisioning, drift detection, and remediation
- Created an automated code-change system that generated commits and code reviews with zero human intervention
- Implemented customer-notification systems for failed executions and fleet-to-host-class mapping automation
- Gained deep experience with EC2, SQS, SNS, DynamoDB, S3, and CloudFormation

Amazon Games

Nov 2021 – June 2022

Software Development Engineer II

- Developed publishing state machines for game content pipelines
- Built APIs and merged game product data at scale. Integrated schema interfaces for retail and developer tooling

Spliced Inc.

June 2022 – Present

Staff Engineer (2025–Present)

Senior Gameplay Engineer (2022–2025)

- Designed and implemented core gameplay systems using Unreal Engine 5
- Built AI behavior systems, combat systems, loot/pickup mechanics, and latency-resilient networking solutions (moving platforms)
- Drove architecture and data-driven design for flexible game subsystems

Technical Skills

C++

Distributed Systems

Networking

Virtualization

Windows Internals

Device Redirection

Independent Projects

NoSpam Android App | *Owner*

nospamapp.com

- Engineered a high-performance Spam Call Blocker using Kotlin, AWS Lambda, Cognito, IAM, DynamoDB, and CloudWatch
- Implemented local storage of blocked calls and whitelisting

Patents

- [1] **E. Tomes**, et al. “Image Acquisition Device Virtualization for Remote Computing.” *U.S. Patent No. 11,263,031*, January 2022.

Publications

- [1] **E. Tomes** and N. Altiparmak. “A Comparative Study of HDD and SSD RAIDs’ Impact on Server Energy Consumption.” *Sustainable Computing: Informatics and Systems*, 2018.
- [2] **E. Tomes**, E. Rush, and N. Altiparmak. “Towards Adaptive Parallel Storage Systems.” *2017 IEEE International Conference on Networking, Architecture and Storage (NAS)*, 2017.
- [3] **E. Tomes**, L. Hall, B. Harris, and N. Altiparmak. “Big Data Aware Virtual Machine Placement in Cloud Data Centers.” *Sustainable Computing: Informatics and Systems*, 2017.