Jason Cusati

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Professional Summary

- Computer Science PhD candidate and applied researcher who bridges large-scale software engineering with empirical AI/ML research. Two decades architecting Azure data platforms and SaaS systems now grounds research that is reproducible, deployable, and measured against real workloads, spanning LLM-assisted software engineering, security classification, and mechanistic interpretability. Published at ICSE 2026, with hands-on depth in ML pipelines, evaluation design, and the engineering rigor that industry R&D depends on.

Professional Experience

2024 – Present
- **Virginia Tech — Blacksburg, VA** *Doctoral Researcher — Software Engineering with AI/ML/MI*
  - Researching **LLM-curated knowledge graphs** as a provenance substrate for evidence-based research progression — studying how agent-orchestrated curation (Navigator / Extractor / Continuation) improves faithfulness of downstream LLM responses compared to LLM-generated KGs.

2024–2025
- **Yoh, A Day & Zimmerman Company — Remote, SC** *ADF Solution Architect – Core Specialty Insurance*
  - Led a small SDE team delivering V1 of an **Insurance Data Ingestion Platform** for a specialty carrier: extended Microsoft's Common Data Model into a domain schema for the carrier's data types; reduced time-to-ingest by **50%**.

2021–2023
- **Duck Creek Technologies — Columbia, SC** *Senior Technical Architect – OnDemand SaaS Operations*
  - Developed Python algorithm to predict Sev 1 incidents from logs.

2016–2020
- **Blackbaud — Charleston, SC** *Principal Engineer – Sustained Engineering*
  - Delivered root-cause production fixes across enterprise products using C#, SQL, and performance tooling; achieved **100%** resolution on critical cases.
- Earlier employment history includes tenure as Solution Architect – Enterprise Professional Services, Blackbaud; Software Engineering Consultant, DJJayNet Consulting.

Education

2027 (exp.)
- **Ph.D., Computer Science (SE with AI/ML/MI)**, Virginia Tech, Blacksburg, VA

2026 (exp.)
- **M.S., Engineering**, Virginia Tech, Blacksburg, VA
- **B.S., Economics**, Virginia Tech, Blacksburg, VA

Technical Skills

AI/ML

- scikit-learn; TensorFlow; LLM; SVM; Random Forest; Feature Engineering

Tools

- Azure; AWS; Docker; PostgreSQL; SQL Server; FastAPI; Streamlit

Languages

- Python; C#; Java; JavaScript; T-SQL; Bash