Jason Cusati

djjay@vt.edu 202.596.2477 @djjay0131 jason-cusati
djjay0131 djjay0131.github.io/website Google Scholar



Professional Summary

- Results-oriented technical executive and principal engineer with deep experience leading platform architecture, data integration, and SaaS operations. Specialized in Azure (Data Factory, Storage, Key Vault), large-scale ETL/ELT pipelines, automation, and end-to-end delivery. Proven record building teams, accelerating migrations, and embedding AI/ML to increase quality and speed of software delivery.

Professional Experience

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%**.
  - Architected and implemented an API to orchestrate Azure Data Factory pipelines and data flows.

2021–2023
- **Duck Creek Technologies — Columbia, SC** *Senior Technical Architect – OnDemand SaaS Operations*
  - Led customer through launch of 1st client on accelerated timeline of 3 months with fully automated deployment to Azure Storage Services, Key Vault, Redis cache, and Docker containers using a combination of ADO and Octopus Server, via Bash and PowerShell scripts, working within the SaFe framework.
  - Architected robust and adaptive end-to-end data integration and data transformation solutions, utilizing hybrid hosted single-node and shared SaaS applications with integrations across multiple third-party applications and service providers.
  - Built deployment analysis framework (C#, PowerShell, Octopus, ADO) eliminating **75%** of deployment issues.
  - Coordinated in PEN testing and consulted on risk mitigation options for pre go-live security assessment.

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.
  - Reduced deployment time and customer involvement by **50%** by engineering DevOps scripts for custom code deployment to Azure multi-tenant environments, standardizing Azure pipelines using continuous deployment YAML scripts and NuGet artifact management, and single package deployments.
  - Met **100% SLA** for Tier 3 support, improving VB.NET, C#, and Java systems.
  - Boosted security and user administration by designing and implementing SSO component for enterprise CRM product by utilizing SAML 2.0 protocol. Unilaterally designed all SAML plug-ins.

2011–2016
- **Blackbaud — Charleston, SC** *Solution Architect – Enterprise Professional Services*
  - Led multiple enterprise implementations from architecture to go-live; coordinated global teams.
  - Designed full CRM integrations and migration strategies, reducing timelines by **50%**.
  - Steered enterprise data migration projects for client with 10M+ constituents and 1B+ records across US and European Union, ensuring compliance with national data laws.
- Earlier employment history includes tenure as Software Engineering Consultant, DJJayNet Consulting; Chief Architect, LimeLeap Solutions; Director of Professional Services, LimeLeap Solutions; Team Leader, LimeLeap Solutions; Senior Software Engineer, LimeLeap Solutions; Software Developer, LimeLeap Solutions; Web Applications Consultant, NCMEC; Technical Writer, Force, Inc.; Graphics Designer, A.T. Kearney.

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

Research Publications

Journal Articles

1. **J. Cusati** and C.-S. Chuang, "Virginia tech transportation safety index (vttsi)," *arXiv preprint arXiv:2606.21154*, 2026. URL: https://arxiv.org/abs/2606.21154
2. C. Brown and **J. Cusati**, "Exploring the evidence-based se beliefs of generative ai tools," *arXiv preprint arXiv:2407.13900*, 2025. URL: https://arxiv.org/abs/2407.13900

Conference Proceedings

1. **J. Cusati** and C. Brown, "From papers to progress: Rethinking knowledge accumulation in software engineering," in *Proceedings of the IEEE/ACM 48th International Conference on Software Engineering (ICSE 2026)*, Accepted; to appear, 2026. DOI: 10.1145/3793657.3793888

Selected Projects & Research

- **LLM Coding Assistant** — Python, Streamlit, OpenAI API; FastAPI backend; agentmon design.
- **Security Vulnerability Classifier** — Repository scanner classifying code against CVE mappings.
- **Sentiment Analysis of Yelp Reviews** — Python, Pandas, NLTK; topic modeling with LDA.
- **Predicting NFL Player Performance** — Time-series modeling using ML regressors.

Technical Skills

Tools

- SQL Server; PostgreSQL; .NET; AngularJS; Atlassian; TeamCity; Azure; AWS; ADO; Docker; Octopus; VS Code; PyCharm; FastAPI; Streamlit

Languages

- JavaScript; C#; Java; VB.NET; C++; T-SQL; PowerShell; Node.js; Python; Kotlin; Bash; Gradle

AI/ML

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