Jason Cusati

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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.
- Used **Claude as engineering partner** to scaffold pipeline code and generate ADF source-to-target mappings; hand-implemented the more complex transformation and validation logic.
- Built a Streamlit UI integrated with the Data Ingestion API for faster analyst feedback loops.

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.
- Drove ADF implementation connecting Duck Creek data with customer Data Lakes.
- Coordinated in PEN testing and consulted on risk mitigation options for pre go-live security assessment.
- Saved hundreds of hours of manual clicking by developing automated upgrade scripts written in PowerShell for a 3-year-old Octopus instance and overseeing multiple exception cases.
- Developed Azure Authentication flow for SSO integration into on-premise, cloud-hosted, and third-party applications.
- Built deployment analysis framework (C#, PowerShell, Octopus, ADO) eliminating **75%** of deployment issues.
- Analyzed server logs and predicted Sev 1 cases through creation of AI algorithm written in Python, using scikit-learn.

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.
- Enabled automation generation and publication of APIs to Azure by constructing REST Web Services for enterprise product API and framework using Swagger Code Generation CLIs.
- Finalized DevOps continuous deployment process for customer application software development by automating delivery of component software library and customer-specific integration code into single deployment package.
- Enhanced staff development and performance by training and leading junior staff members.

Professional Experience (continued)

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%**.
- Devised cohesive view of implementation projects across business unit with consistent issue tracking system through execution of Atlassian suite of tools to decrease project overruns.
- Built Azure environments for development and CI/CD.
- Steered enterprise data migration projects for client with 10M+ constituents and 1B+ records across US and European Union, ensuring compliance with national data laws.
- Conducted deep-dive on existing data conversion processes and executed improvement plan by generating automated Validation Scripts in SQL Server and automating the iterative conversion process.

2005–2011 • **DJJayNet Consulting — Arlington, VA** *Software Engineering Consultant*

- Integrated user interfaces with Crestron touch hardware using custom .NET controls.
- Implemented REST APIs with Entity Framework and C#.
- Created back-end REST API for multi-dwelling concierge system in Trump Towers South Beach via utilization of C# .NET.

• Earlier employment history includes tenure as 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

Platforms

- Windows; Linux; IIS; Apache; Tomcat

Technical Skills (continued)

Tools

- SQL Server; MySQL; Oracle; PostgreSQL; .NET; AngularJS; Entity Framework; Atlassian; TeamCity; Azure; Azure API; AWS; ADO; Docker; Octopus; R Studio; VS Code; PyCharm; Wireshark; FastAPI; Streamlit

Languages

- JavaScript; HTML 5.0; CSS; VB.NET; C#; Java; ASP.NET; C; C++; Groovy; Objective C; T-SQL; PHP; Scala; PowerShell; Node.js; Python; Kotlin; Vue.js; Bash; Gradle

AI/ML

- scikit-learn; TensorFlow; KNN; RNN; CNN; LSTM; LLM; SVM; Linear Regression; Random Forest; Naive Bayes; Feature Engineering

Miscellaneous Experience

Awards and Achievements

May 2026
- **Phi Kappa Phi**, inducted member — national honor society recognizing academic excellence across all disciplines.
- **Omicron Delta Kappa**, inducted member — national leadership honor society.

2008
- **Customer Service Award**, LimeLeap Professional Services.

Certification

- Certified Jira & Confluence Administrator
- Certified Scrum Master
- Certified Secure Software Lifecycle Professional (CSSLP)

References

Available on Request