

Scott Weeden

Senior Software Engineer & Solutions Architect

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Professional Summary

Solutions Architect and Lead Developer with over 15 years of experience engineering high-security monitoring systems, automated database pipelines, and system integrations. Proven expertise in developing operational dashboards and secure access controls for the Department of Defense and major enterprise environments. Currently pursuing a Master of Computer Applications with a focus on algorithms, intelligent systems, and software verification, directly applicable to automated testing, SCADA development, and industrial control logic.

Education

- 2025–Present **Master of Computer Applications - Computer Science, Texas Tech University**
- Relevant Coursework: Software Verification and Validation, Analysis of Algorithms, Intelligent Systems.
 - Focus: System validation, testing strategies, logic programming, and computational intelligence.
- 2000–2004 **Bachelor of Science in Computer Science, The Ohio State University**

Achievements & Competitions

- ROGII Top ranking solution in the ****Wellbore Geology Prediction**** challenge, utilizing advanced machine learning for industrial geosteering automation.
- NeuroGolf Top ranking solution in ****The 2026 NeuroGolf Championship****, developing high-performance agents for complex trajectory optimization and control.
- Kaggle Active participant in data science competitions, focusing on time-series analysis and predictive modeling for industrial applications.

Publications

- 2027 Weeden, S., et al. "A Trace-Language Framework for Agent Verification." *Proceedings of the 41st AAAI Conference on Artificial Intelligence (AAAI-27)*, 2027. (Accepted)

Technical Skills

- Programming C/C++, C#, ASP.NET MVC, Python, SQL, VBA
- Database SQL Server (SSIS, SSRS, Stored Procedures, Optimization), Oracle
- Automation/HMI Operational Dashboards, System Integration, Automated Reporting, REST APIs
- Validation Software Verification, Factory Acceptance Testing (FAT) concepts, Unit/Integration Testing, CI/CD
- Security IAM (PingFederate, OKTA, AzureAD), SSO Integration, OIDC, Cybersecurity best practices

Professional Experience

- 2022–2025 **IAM Developer**, *ExecuSource*, Atlanta, GA
- Integrated Home Depot .NET applications into the enterprise SSO provider (PingFederate), replacing legacy account login and role management systems.
 - Addressed critical security findings from audits, enhancing system hardening and compliance across supply chain applications.
 - Implemented CI/CD pipelines for automated deployment and verification of security-critical services.
 - Prepared detailed technical documentation and manuals, and provided mentorship to junior-level programmers on secure coding practices.
- 2020–2022 **Database Developer**, *Fisher Investments*, Camas, WA
- Engineered automated methods for MSSQL functionality, including stored procedures, index tuning, and data pipelines on Azure cloud, directly mirroring Historian-to-SQL data extraction requirements.
 - Designed high-performance financial reports in Microsoft Dynamics and developed integration workflows, ensuring efficient data retrieval and maintenance for operational analysis.
- 2014–2020 **Programmer III / Solutions Architect**, *Jabil*, St Petersburg, FL
- Developed a comprehensive Risk Dashboard for the CFO, integrating diverse data sources to visually represent compliance, manufacturing, and supplier statuses.
 - Evaluated system linkages, optimized connections, and partnered with stakeholders to define requirements, mirroring SCADA network and communication link testing.
- 2010–2016 **Lead Dotnet Developer**, *TEKsystems*, DC Metro / Tampa, FL
- Engineered processes for software testing, validation, and defect resolution at Jackson Hewitt, ensuring system reliability and adherence to strict acceptance criteria.
 - Developed dashboards interfacing with SolarWinds REST API at CSC to automatically generate support tickets and provide critical system health reporting.
- 2010–2013 **Lead Developer**, *Computer Sciences Corporation (CSC)*, Falls Church, VA
- Architected the Joint Logistics Analysis Tool for the Defense Logistics Agency (DoD), creating secure user interfaces, menus, and controls.
 - Developed operational dashboards monitoring system resources and deployments at highly sensitive national infrastructure sites, demonstrating capability in critical infrastructure visualization similar to HMI/SCADA screens.
- 2007–2010 **Software Engineer**, *Primescape Solutions*, Washington, DC
- Developed background Windows services using C# for internal debt management at the US Treasury, generating APIs and background services for regular financial updates.