

# MINH DUY TRUONG

## Software Engineer

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### SUMMARY

Full-stack Software Engineer with strong architectural foundations and applied ML expertise. Designs and builds production-grade systems using C#, ASP.NET, Blazor, and Aspire, integrating ML insights to optimize user experience and decision-making. Experienced in deploying scalable cloud solutions on Azure with CI/CD pipelines, database optimization, and high-availability architectures.

### EDUCATION

Western Governors University	Salt Lake City, UT
• <b>Master of Science in Computer Science   AI and Machine Learning</b> Focus: Deep Learning, NLP, Advanced AI, Computer Architecture, Applied Algorithms	Expected Oct 2026
• <b>Bachelor of Science in Data Analytics</b> Focus: Big Data, MLOps, Data Structures and Algorithms, Advanced SQL & DB Management	

### SKILLS & CERTIFICATIONS

- **Certifications:** Azure AZ-900 • Azure DP-900 • CompTIA Data+ • CompTIA Project+ • AWS Certified Cloud Practitioner
- **Programming & Frameworks:** C#, .NET, ASP.NET Core, EF Core, ADO.NET, Blazor, Aspire, Python, R, SQL
- **Cloud & Tools:** Azure, Docker, Git, CI/CD, AWS
- **AI & Machine Learning:** Foundry AI, Supervised & Unsupervised Learning, Model Evaluation, TensorFlow, PyTorch
- **Databases:** SQL Server, Azure SQL, MySQL, PostgreSQL, MongoDB, Google BigQuery
- **Visualizations:** Power BI, Tableau, Google Data Studio

### EXPERIENCE

<b>Cloud Application Developer (Learning Internship)</b> <i>Microsoft Software and Systems Academy (MSSA)</i>	Nov 2025 – Feb 2026
• Built production-ready microservices using <b>ASP.NET Core</b> , applying <b>SOLID</b> principles and <b>Clean Architecture</b> ; implemented dependency injection and <b>Entity Framework</b> for scalable backend systems handling high-concurrency workloads.	Virtual
• Designed highly normalized SQL schemas and optimized queries, achieving <b>~40% performance improvements</b> through indexing strategies and <b>T-SQL</b> tuning under production-like load.	
• Implemented end-to-end <b>CI/CD</b> pipelines with <b>Azure DevOps</b> and <b>GitHub Actions</b> , automating builds, testing, quality checks, and containerized deployments to <b>Azure App Services</b> .	
• Developed a comprehensive unit and integration testing suite using <b>xUnit</b> , achieving <b>85% code coverage</b> ; implemented structured logging with <b>Serilog</b> and <b>Azure Application Insights</b> for production monitoring.	

<b>Financial Management Technician</b> <i>U.S. Army</i>	Jul 2020 - Jul 2024
• Designed and automated financial data pipeline using <b>Python</b> and <b>SQL Server</b> , processing <b>\$2M+</b> in annual transactions with <b>99.5% accuracy</b> , reducing manual errors by 40% and improving processing timeliness by 60%.	South Korea & Texas
• Built predictive analytics solutions delivering executive-level insights for cost optimization and audit readiness, <b>reducing audit preparation time by ~50%</b> in high-compliance environments.	

### PROJECTS

<b>BodyMetrics 360</b> (C#, ASP.NET, EF Core, SQL Server, Azure, GitHub Actions, xUnit, Bootstrap 5)	Dec 2025
• Designed and deployed an end-to-end health metrics platform delivering accurate, <b>real-time</b> body composition calculations (BMI, BFP, LBM, etc.) with <b>99.9% availability</b> and secure <b>session-based</b> user state management.	
• Architected modular <b>Clean Architecture</b> with a <b>monolithic design</b> , supported by a <b>CI/CD</b> pipeline using GitHub Actions and Azure, improving code maintainability and <b>test coverage by 85%</b> , reducing deployment cycle time by <b>~50%</b> through automated build, test, and release workflows.	
• Improved system performance and cost efficiency by optimizing backend data structures and algorithms, implementing database indexing and <b>4NF normalization</b> , achieving <b>~30% faster computation times</b> while <b>cutting database costs by 50%</b> .	

<b>CoreBanking API</b> (C#, ASP.NET, Aspire, PostgreSQL, Docker, Nginx)	Jan 2026
• Engineered a horizontally scalable minimal banking API, with Microservices design, that supports seamless multi-instance expansion behind a single entry point, <b>doubling request throughput (~2x)</b> without breaking client integrations.	
• Designed a <b>highly available, fault-tolerant</b> architecture with active multi-instance services and automated migrations, eliminating application SPOFs, and <b>achieving &gt; 99.9% uptime</b> in failure simulations.	
• Enforced <b>secure role-based traffic isolation</b> (public APIs on 8080, admin/telemetry on 18888) with OpenTelemetry observability, reducing incident blast radius, <b>cutting diagnosis time by ~30%</b> , and improving operational visibility.	