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

- **Master of Science in Computer Science | AI and Machine Learning** — Expected Oct 2026
  Focus: Deep Learning, NLP, Advanced AI, Computer Architecture, Applied Algorithms
- **Bachelor of Science in Data Analytics**
  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

Cloud Application Developer (Learning Internship) — Nov 2025 – Feb 2026
Microsoft Software and Systems Academy (MSSA) — Virtual

- Built production-ready microservices using **ASP.NET Core**, applying **SOLID** principles and **Clean Architecture**; implemented dependency injection and **Entity Framework** for scalable backend systems handling high-concurrency workloads.
- Designed highly normalized SQL schemas and optimized queries, achieving ~**40% performance improvements** through indexing strategies and **T-SQL** tuning under production-like load.
- Implemented end-to-end **CI/CD** pipelines with **Azure DevOps** and **GitHub Actions**, automating builds, testing, quality checks, and containerized deployments to **Azure App Services.**
- Developed a comprehensive unit and integration testing suite using **xUnit**, achieving **85% code coverage**; implemented structured logging with **Serilog** and **Azure Application Insights** for production monitoring.

Financial Management Technician — Jul 2020 - Jul 2024
U.S. Army — South Korea & Texas

- Designed and automated financial data pipeline using **Python** and **SQL Server**, processing **$2M+** in annual transactions with **99.5% accuracy**, reducing manual errors by 40% and improving processing timeliness by 60%.
- Built predictive analytics solutions delivering executive-level insights for cost optimization and audit readiness, **reducing** audit preparation time by **~50%** in high-compliance environments.

PROJECTS

BodyMetrics 360 (*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, **real-time** body composition calculations (BMI, BFP, LBM, etc.) with **99.9% availability** and secure **session-based** user state management.
- Architected modular **Clean Architecture** with a **monolithic design**, supported by a **CI/CD** pipeline using GitHub Actions and Azure, improving code maintainability and **test coverage by 85%,** reducing deployment cycle time by ~50% through automated build, test, and release workflows.
- Improved system performance and cost efficiency by optimizing backend data structures and algorithms, implementing database **indexing** and **4NF normalization**, achieving **~30% faster computation times** while **cutting database costs by 50%.**

CoreBanking API (*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, **doubling request throughput (~2x)** without breaking client integrations.
- Designed a **highly available, fault-tolerant** architecture with active multi-instance services and automated migrations, eliminating application SPOFs, and **achieving > 99.9% uptime** in failure simulations.
- Enforced **secure role-based traffic isolation** (public APIs on 8080, admin/telemetry on 18888) with OpenTelemetry observability, reducing incident blast radius, **cutting diagnosis time by ~30%**, and improving operational visibility.