

AHMED ABDEL-MEGUID

Principal Software Engineer — Enterprise Architecture & Distributed Systems

[Atlanta, GA] | [www.AhmedAM.com] | [ameguid@gmail.com]

PROFESSIONAL SUMMARY

Principal-level software architect with 15+ years designing and leading enterprise-scale, multitenant, B2B systems in C#/.NET on Microsoft Azure and Amazon Web Services. Proven track record establishing architecture standards, contract-first / event-driven APIs, and cross-team engineering practices for large organizations. Experienced building the frameworks — RFC/design-review processes, reusable service libraries, CI/CD pipelines, and vendor/service integration layers — that other engineering teams build on top of. Deep background mentoring senior engineers, driving code-quality and security standards, and translating complex technical strategy for non-technical stakeholders. AI tooling and agentic workflow.

CORE COMPETENCIES

Enterprise & Platform Architecture • Contract-First / Event-Driven API Design • Multitenant, Configurable B2B Integrations • Microsoft Azure • AWS • C#/.NET • CI/CD & Deployment Standards • Code Quality & Review Leadership • Cross-Functional Stakeholder Management • Technical Mentorship • Legacy System Modernization • Documentation & API Contracts

PROFESSIONAL EXPERIENCE

Principal Software Engineer, Founder — *Fair Trade Technologies*

8/2022 – Present

Consultation and development services for FinTech and simulation clients; leads a distributed, nationwide engineering team.

- Lead architecture and delivery of **scalable backend platforms** for fintech and simulation products using .NET and AWS
- Set technical direction for a distributed engineering team across multiple concurrent systems
- Build systems supporting **real-time data processing and third-party B2B integrations**
- Establishing **reusable platform architecture patterns**, reducing time-to-delivery and enabling consistent system design
- Creating clear software development plans from ambiguous requirements
- Incorporating AI tooling and agentic workflow for productivity gains

Principal Software Engineer — *Guaranteed Rate*

12/2021 – 8/2022

Principal Engineer, Product Engineering — owned architecture for enterprise-wide applications and microservices in C#/.NET.

- Architected **enterprise-wide event-driven microservices platform** serving multiple teams
- Designed **multitenant B2B systems** enabling configurable vendor integrations to replace legacy systems, **reducing cloud and vendor spend** for the related operations by 33%
- Reduced new **B2B** vendor integration time from 2 months to 1 week
- Introduced **RFC process** to establish an enterprise-wide architecture decision framework
- Drove system design tradeoffs across **latency, reliability, and scalability**
- Improved **platform consistency** and developer velocity through shared architecture standards
- Influenced **technical direction** across multiple teams without direct authority
- Wrote credit reporting software that **safely, securely, reliably, and performantly** generated mortgage credit reports

Software Engineer — *Rocket Mortgage*

12/2018 – 11/2021

Tech lead for Rocket Pro services; drove event-driven architecture and legacy modernization.

- Supported systems handling **millions of daily transactions** across multiple services
- Led modernization of legacy systems into **event-driven distributed architecture**, reducing latency for relevant calls by ~10-50% and completely eliminating the need for some
- Built reusable backend libraries used across 6 internal teams to handle authentication and authorization for **hundreds of thousands of daily transactions**
- Eliminated recurring authentication-related defects in new feature releases, overall reducing live incidents, downtime, and failures
- Developed CI/CD pipelines **improving deployment speed** by well over 200% and **reducing build failures** by ~50%
- Identified system-wide bottlenecks via architecture mapping, enabling performance gains for **high-throughput systems**
- Mentored engineers and improved code quality through structured reviews

Solution Architect — *Clear Launch*

8/2017 – 6/2018

Client architecture across mobile, web, and eCommerce projects (Tiff's Treats, Build-A-Sign, Precision Autonomy, WellAware, Broomly).

- Translated client and project requirements into discrete, actionable engineering tasks across multiple concurrent projects.
- Delivered prototypes, mockups, and wireframes to de-risk new projects before full-scale development.
- Worked across C#, Unity, Azure, ASP.NET, MSSQL, Angular, and Node.js/MongoDB stacks.

Senior Software Engineer — *Redbird Flight Simulations*

1/2016 – 7/2017

Full-stack development and CI administration for flight simulator and aircraft products.

- Architected multiple production systems spanning C#/.NET, Elixir/Phoenix, and PostgreSQL, including a mission-grading service and an EASA qualification test guide, all from scratch.
- Set up and administered continuous integration using Jenkins, GitLab, and AWS.
- Developed installer tooling and cross-language integrations (C#/C++, SimConnect, BLE/Phidgets).

Technology Developer — *EWI Worldwide*

6/2013 – 6/2015

Managed the development department for enterprise brand-experience installations (AT&T, Kia, Pavilion Park).

- Took over and managed the Development department following the departure of the previous Technical Director.
- Architected cross-platform applications spanning C#/.NET, WPF, Xamarin (iOS/Android), and Azure for major enterprise clients.

Curriculum Developer / Lead Instructor — *Internal Drive Tech Camps*

7/2012 – 3/2013

- Developed curriculum for the Game Academy division and led a team of 6 instructors at the Harvard Game Academy.

Contract Teacher — *Blackstone Academy Charter School*

3/2012 – 6/2012

- Taught Chemistry, Physics, Biology, and Geology using hands-on, improvised classroom activities.

Game Designer — *38 Studios — Kingdoms of Amalur*

9/2010 – 2/2012

- Product Owner for the BigWorld server scripting system and the UDK client-side events system.
- Prototyped experimental game systems and scripted content for the game's vertical slice.

Game Designer — *BioWare — Star Wars: The Old Republic*

7/2009 – 7/2010

- Scripted multiplayer content for a story-driven, large-scale online game.
- Partnered with engineering to prototype and revise the Companion Character System.
- Led workshops with internal and external design teams on advanced game systems.

PRESENTATIONS & SPEECHES

- "Causing Fear and Anxiety through Sound Design" — MIT Museum, 5/2011
- "Making Games with Quickness and Awesomeness" — MIT Game Lab, 4/2012

EDUCATION

Master of Interactive Technology — Southern Methodist University (SMU Guildhall)

- First SMU Guildhall graduate to publish a research thesis; created a methodology for studying emotional responses to games.
- Publication: Toprac, P. and Abdel-Meguid, A., "Causing Fear and Anxiety through Sound Design in Video Games," in Game Sound Technology and Player Interaction: Concepts and Developments (M. Grimshaw, Ed.).

Bachelor of Science in Business Management — Illinois State University

TECHNICAL SKILLS

Languages & Frameworks: C#, .NET, ASP.NET, C++/C, JavaScript, Java, Python, HTML/CSS, Node.js, Angular, Unity, Unreal Engine, Elixir/Erlang/Phoenix, Lua, MVC/MVVM, COM, Xamarin, WPF

Cloud & Data: Microsoft Azure, Amazon Web Services (AWS), MSSQL, PostgreSQL, SQLite, MongoDB, GDI+

Engineering Practice: Event-driven architecture, contract-first API design, CI/CD (Jenkins, GitLab), enterprise RFC/design-review processes, multitenant SaaS architecture, vendor/third-party integration, code review & mentorship