

Cody Van De Mark

Senior Backend Systems Engineer

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SUMMARY

Backend systems engineer with 14+ years building high-scale distributed services, secure infrastructure, and shipped multiplayer games. Engineering lead for security on Microsoft's Sales agent and Head of Engineering at an independent studio shipping multiplayer titles in Unreal. Comfortable end-to-end: server architecture and networking, tools and pipelines, gameplay code, and the web front ends on top of them.

TECHNICAL SKILLS

Languages: C#, TypeScript, JavaScript, SQL, Python, Java, HTML, CSS

Backend & Infrastructure: Distributed systems, high-scalability service architecture, REST APIs, Node.js, Azure, Azure SQL, MongoDB, NoSQL, dedicated game servers, CI/CD, telemetry and monitoring

Security Engineering: Secure code development, threat modeling, vulnerability discovery and remediation, authentication and authorization, code auditing, DoD/NISPOM-compliant practices

Multiplayer & Games: Unreal Engine, Unity, gameplay networking, client-server replication, session and matchmaking, latency mitigation, profiling and optimization, Steam and mobile releases

Full Stack & Tools: React, Node.js, MVC/MVVM, tools development, build and release pipelines, Git, Perforce

Leadership: Engineering lead, feature team lead, cross-discipline collaboration, technical mentoring, curriculum design and instruction

PROFESSIONAL EXPERIENCE

Microsoft

Redmond, WA

Senior Software Engineer

September 2023 - Present

- Engineering lead for security on the Microsoft Sales agent, owning security architecture and review across agent and Copilot surfaces in Teams and Outlook.
- Own infrastructure and architecture decisions spanning multiple Business and Industry Copilot products, resolving group-wide engineering issues that cross service boundaries.
- Design and harden backend services that operate at enterprise scale across Microsoft 365, balancing throughput, reliability, and a strict security bar.
- Previously an engineer on Copilot for Sales (formerly Viva Sales), building AI and automation features delivered inside Teams and Outlook.

Software Engineer II

March 2020 - September 2023

- Feature team lead for Viva Sales across Teams and Outlook, driving features from inception through ship.
- Lead engineer for Office Integration with Dynamics 365, covering SharePoint, OneDrive, OneNote, Excel, Word, and PDF pipelines.
- Shipped and published Microsoft Deal Manager (Sales Visualizer) using React, TypeScript, Node.js, Fluent, and Power Apps.
- Engineer on Microsoft Product Visualize, an augmented reality sales product built in Unity and C#.

Earth Giant Games

Seattle, WA

Head of Engineering

March 2025 - Present

- Lead all engineering for Tank Goblins, a multiplayer game in active development, setting technical direction and priorities for the team.
- Own the multiplayer backend: server architecture, replication, session and matchmaking flow, and network performance under real-world latency.
- Build the tools, build pipeline, and infrastructure the studio ships on, keeping iteration fast for designers and artists.
- Contributed engineering to Crush Depth, a shipped title.

DB Creations

Remote

Lead Multiplayer and Networking Engineer

March 2020 - August 2020

- Architected and implemented the multiplayer networking layer for Table Trenches, a shipped augmented reality strategy game on iOS and Android built in Unity.
- Designed authoritative state synchronization and lag mitigation for real-time play across mobile devices and unreliable networks.

Rochester Institute of Technology

Rochester, NY

Lecturer, School of Interactive Games and Media

September 2013 - March 2020

- Wrote and taught seven years of graduate and undergraduate courses in game and software engineering: Unreal, Unity, C++, C#, tech art, application profiling, VR, full-stack web development, and database design.
- Coached students through shipping projects end to end, which is where the leadership habits I use running engineering teams came from.

OnWire Consulting Group

Raleigh, NC

Security Engineer

March 2013 - August 2013

- Built security software and client-side interfaces in Java, Python, and JavaScript on IBM WebSphere, Red Hat Linux, and Oracle databases; wrote and reviewed technical documentation.

ROC IT Solutions (now TraceLink)

Rochester, NY

Software Engineer, Full Stack

June 2012 - March 2013

- Owned architecture, database design, and all server- and client-side code for a web console handling content management, employee management, and automated PDF generation.

Lockheed Martin

Owego and Endicott, NY

Software Security Engineer

2008 - 2010

- Discovered and patched security vulnerabilities, built virtualized server environments, and led secure code practices in DoD/NISPOM-compliant environments.
- Developed environment integration APIs for Tivoli products and automated Linux packaging and installation.

SELECTED PROJECTS

Tank Goblins — In development. Multiplayer game in Unreal. Engineering lead and multiplayer backend owner.

Table Trenches — Shipped on iOS and Android. Network and multiplayer architect. Augmented reality strategy game in Unity. <https://www.dbcreations.studio/table-trenches>

Evolution Moon — Pre-release on Steam. Solo engineer. Multiplayer FPS built in Unreal. https://store.steampowered.com/app/1748740/Evolution_Moon_Warfare/

Desolate Cosmos — Personal project focused on tech art, optimization, and profiling, with a written post-mortem. <https://renardchien.github.io/DesolateCosmos-PostMortem/>

EDUCATION

Master of Science, Human-Computer Interaction, Rochester Institute of Technology 2012

Bachelor of Science, Information Technology, Rochester Institute of Technology 2010

Certifications: Unreal Engine C++ Developer (Udemy) - Accessibility in Action (Microsoft)