ZAID KAMIL

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SUMMARY

Software Engineer with 4+ years of professional experience designing, coding, testing, and shipping production-grade software systems in C# and C++. Deep expertise in the full software development pipeline, with lead cross-functional collaboration, document interface requirements, and deliver shipped production systems. M.S. Computer Science, GPA 3.90. Based in the Los Angeles area, open for relocation.

EDUCATION

Master of Science in Computer Science — Dec 2025
California State University — GPA: 3.90

Bachelor of Science in Chemical Engineering — Jul 2020
Texas A&M University

SKILLS

Languages	C/C++ (*3 yrs*), C# (*5 yrs*), Python (*3 yrs*), JavaScript (*1 yr*), Java (*2 yrs*), SQL (*2 yrs*)
Graphics APIs	Metal, Vulkan, DirectX / Direct3D 12, OpenXR (*4 yrs*), WebGPU (familiar)
Testing & QA	Unit/integration testing, Selenium (*1 yr*), Playwright (*1 yr*), Postman (*2 yrs*), TestRigor (*2 yrs*), Debug tools
Rendering	GPU-accelerated rendering, draw call optimization, batching, real-time pipelines, compositing, 3D math
Frameworks	Unity (C#, *7 yrs*),ASP.NET, FastAPI, RESTful APIs (*2 yrs*), JSON/XML
Distributed Systems	Large-scale distributed architectures, Azure (*2 yrs*), Google Cloud (*2 yrs*), RESTful APIs (*2 yrs*)
DevOps & Tools	Docker (*1 yr*), CI/CD (*2 yrs*), GitHub (*3 yrs*), Shell scripting, Linux (*2 yrs*), ServiceNow
ML & AI	PyTorch3D (*1 yr*), LLM APIs (*2 yrs*), AI agents (*1 yr*), NLP, regression, neural networks
Methodologies	Agile/Scrum, data visualization, interactive debugging, performance profiling, prototyping to production
Certifications	Azure Fundamentals, AWS Cloud Practitioner, Cybersecurity Fundamentals, IBM Z Systems

EXPERIENCE

Founder & Software Engineer — Sep 2023 - Mar 2026
z/R Map (Demo) — *Los Angeles, CA*

- Architected and shipped a production XR rendering platform on Meta Quest from prototype to launch, designing distributed GPU-accelerated rendering and media pipelines achieving sub-150ms state synchronization across Azure device networks serving 10 concurrent live users.
- Engineered real-time compositing and telemetry rendering pipelines in Python, integrating live geospatial data streams into immersive 3D environments, reducing end-to-end pipeline latency by 40% through batching optimizations and draw call reduction while sustaining 90% system uptime.
- Integrated AI-powered conversational rendering interfaces via OpenAI APIs into a spatial display environment, achieving sub-300ms query-to-render response times; deployed and validated through CI/CD pipelines on Azure.

XR Software Engineer — Jul 2024 - Feb 2026
Toro Auxiliary Partners (Demo) — *Los Angeles, CA*

- Designed and shipped physics-based real-time rendering simulations for Meta Quest, building GPU-accelerated pipelines that visualized force vectors and dynamic physics in real time, improving measured student engagement by 40% across controlled pilot studies.
- Engineered a multiplayer spatial rendering service using Unity Netcode supporting 30+ concurrent users, implementing synchronized frame-accurate media playback, composited web content rendering, and low-latency state replication across distributed client sessions.
- Led four full software development lifecycle iterations, from whiteboard prototype through performance profiling, GPU optimization, and production release, presenting rendering system specs and tradeoffs to cross-functional teams of 8 at each phase.

Software Engineer Intern — Mar 2024 - Aug 2024
MindHome Inc — *Denver, CO*

- Developed a safety-critical VR rendering application in C++ and C# using Unity graphics and ROS, implementing real-time hand tracking, haptic feedback, and GPU-driven input interaction systems compliant with OpenXR hardware interface standards.
- Profiled and debugged rendering behavior across 5 device configurations using interactive debuggers, achieving 85eliminating critical frame-rate and interaction regressions before each production deployment.

Mixed Reality Software Researcher — Sep 2018 - Dec 2021
Texas A&M University Research (Demo) — *Doha, QA*

- Designed and shipped a spatial computing rendering system for Microsoft HoloLens, engineering real-time 3D compositing, multi-view spatial UI, and interactive graphics pipelines evaluated across 3 cohorts of 50+ users, achieving a 45% improvement in measurable comprehension outcomes.
- Published peer-reviewed GPU rendering and AR systems research at IEEE Virtual Reality Conference, presenting performance data, rendering architecture tradeoffs, and evaluation analytics to an international engineering audience.

Information Technology Assistant Mar 2022 - Mar 2026
Division of IT at CSUDH *Los Angeles, CA*

- Managed and maintained the campus-wide technology network across 150+ endpoints, diagnosing and resolving hardware, networking, and software failures to sustain 90%+ system uptime under real-time operational constraints.
- Administered network infrastructure supporting hybrid-learning AV systems and compute labs, coordinating with enterprise service management platforms to ensure continuity of campus technology services.

Field Engineer Sep 2020 – Sep 2021
Qatar Petroleum *Doha, QA*

- Operated and monitored PLC/DCS control systems for LDPE industrial production, developing practical knowledge of analog and digital electronics, instrumentation, and process control in a safety-critical environment.
- Authored technical documentation including process flow diagrams and SOPs, demonstrating the ability to clearly document system behavior and interface requirements for operational end users.

NOTABLE PROJECTS

IoT Data Integration to AR/VR HMD *Thesis*

- Designed a large-scale distributed IoT data pipeline (Azure IoT Hub, Stream Analytics, REST APIs) streaming live sensor telemetry into AR/VR rendering environments, enabling sub-second data visualization of physical world state on HMD displays.

AR Smart Glass

- Optimized a real-time computer-vision rendering pipeline on severely constrained wearable hardware using GPU profiling techniques equivalent to Metal performance analysis, achieving ∼30 FPS object detection by reducing draw call overhead, tightening memory allocation, and minimizing shader complexity.

PUBLICATIONS

- Kamil, M.Z. et al. (2020). *Development of an Educational Mixed Reality Game on Water Desalination Plants*, IEEE.
- Kamil, Z. (2025). *Integration of Real-Time Data to Visualize Physical Environments in XR*, CSU Scholar.
- Kamil, Z. et al. (2019). *Implementing VR/AR Systems for Insight Into Water Desalination Plant*, OAK Trust.