Andrew Kane
Principal Game Services Engineer

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Summary

Technical leader with 14 years of experience in game development. Skilled in building scalable systems, leading teams, and delivering innovative solutions across startups and AAA studios.

Professional Experience

Phoenix Labs
Principal Programmer, Oct 2023 - May 2024
- Architected gRPC/REST APIs using Google Cloud (Kubernetes, Agones) and integrated them into UE5, optimizing client-server interactions and improving API performance by 30%.
- Reduced cloud resource costs by 28% through efficient scaling strategies, targeted resource allocation, and managed deployment pipelines to support seamless playtests.
- Led a team of 2 senior engineers and managed cross-team collaboration and task allocation to evolve a prototype into a scalable production game.
- Trained my team of 2 on Unreal Engine 5. Both engineers led UE features and exceeded team expectations after training.

Striking Distance Studios
Senior Network Engineering Manager, Jan 2023 - Sept 2023
Network Engineering Manager, Dec 2020 - Jan 2023
- Integrated Epic Games, PlayStation, Steam, and Xbox platforms for a UE4 title, enabling a successful global launch and DLC releases, including features like player identity, purchasing, achievements, and presence.
- Developed an Unreal Engine plugin for online subsystems, supporting multiple titles, studios, and platforms with leaderboards, achievements, telemetry, and micro-patching.
- Led a team of 8 to develop multiplayer and backend features in C#, C++, and Unreal Engine, while standardizing onboarding, workflows, and multi-project plugins.
- Oversaw live operations for a global UE title, resolving critical issues and ensuring smooth multi-platform deployments.
- Ensured storefront compliance and collaborated with PR to manage ratings with global regulatory bodies.
- Automated integration tests and built telemetry pipelines, providing data-driven insights for performance and game tuning.
- Implemented Krafton ID for entitlement rewards via QR code scanning and token verification, improving player engagement.

Crystal Dynamics, Inc. / Square-Enix Co.
Senior Online Services Programmer, June 2018 - Nov 2020
- Led the development and integration of online services across PlayStation, Stadia, Steam, and Xbox platforms, managing a 30+ year-old C++ engine alongside C# and Python tools.
- Managed online services supporting GaaS features like purchasing, account management, inventory, and micro-patching.
- Upgraded the legacy C++ engine from C++98 to C++11, delivering a 3% game-wide performance boost by

Skills & Specialties

Programming Languages:
- C++
- C#
- CSS
- Go
- HTML
- Java
- JavaScript
- JSON
- LUA
- PHP
- Python
- SQL
- TypeScript
- XML

Platforms:
- Android
- Epic Games
- iOS
- Linux
- Mac
- PlayStation 4/5
- Stadia
- Steam
- Steam Deck
- Xbox One
- Xbox Series X/S

Development Tools:
- Git
- gRPC
- .NET
- Node.js
- Perforce
- Protocol Buffers
- React
- REST
- Sockets
- Subversion (SVN)
- Unity3D
- Unreal Engine 4/5
- Visual Studio
- VIM

Infrastructure:
- Agones
- Amazon Web Services (AWS)
- Bash
- Docker
- Google Cloud Platform (GCP)
- Jenkins
- Kafka
- Kubernetes (K8s)
- Message Queues
- Redis
- Serverless (Lambda & Cloud Run)

Project & Data:
- Agile
- Google BigQuery
- Confluence
- Excel
- JIRA
- Kanban
- Looker
- Miro
- MongoDB
- MySQL
- PostgreSQL
- Scrum
- Tableau
- Trello

Leadership & Interpersonal:
- **Effective Communication**: Conveyed ideas & transparent updates to stakeholders & execute management.
- **Technical Leadership & Mentorship**: Guided & mentored engineers across all skill levels. Foster collaboration & growth focus.
- **Agile Project Management:** Directed complex projects & adapted to changing priorities.
- **Collaborative Problem-Solving**: Worked with cross-functional teams and encouraged constructive feedback for continuous improvement.
- **Accountability & Ownership**: Owned project outcomes & accountability for delivered solutions.

Games
- Arms Cartel (Midverse Studios)
- Bingo (Midverse Studios)
- Criminal Empire (NCSoft)
- Diablo III: Reaper of Souls (Blizzard)

collaborating with engineering leadership and QA to regression test and validate functionality.
- Achieved a 1500% server-side and 500% client-side performance improvement through optimization, caching, and strategic operation timing.
- Led a cross-functional team of engineers and contractors across 6 time zones, covering build, game client, tools, and backend development, while collaborating with Montreal's "Online Suite" team to integrate centralized online technology.
- Contributed to the record-breaking beta launch, with 6M unique users, setting PlayStation's record for most downloaded beta.
- Ensured a seamless global launch by resolving critical platform, backend, and data issues, particularly in purchasing and data scheduling.

Jam City, Inc. / Tiny Co.
Lead Software Engineer, Aug 2017 - May 2018
- Built a unified C# codebase for a real-time battle arena game using Unity 3D and .NET Core, while optimizing developer efficiency across backend services and mobile clients (Android/iOS) via unit and integration testing.
- Contributed to cross-studio Unity 3D C# core technologies by improving tween libraries and dependency injection methods, resulting in increased developer productivity.
- Launched a global mobile (Android/iOS) title using a C++ engine and a Python Django REST API backend.
- Influenced new game developments by pitching innovative technologies to executive leadership and refining game designs for niche market fit.

NCSoft Corp. / Iron Tiger Studios
Senior Server Engineer, March 2016 - Aug 2017
- Developed a container-based C# REST API, enhancing deployment flexibility on AWS and enabling local services for all developers.
- Built a core technology team and streamlined centralized C# online game services by standardizing key features (purchasing, player identity, custom player data) across all backend services for Unity 3D titles on Android/iOS.
- Created technical design documentation for backend game features and established best practices, including code review and unit and integration test pipelines.
- Optimized TCP socket communication, reducing bandwidth consumption by 85% and increasing user capacity by 4000%.

Blizzard Entertainment, Inc.
Software Engineer (Battle.net Team), Jan 2014 - March 2016
- Developed C++ libraries for all Blizzard teams, including WebSockets, telemetry, inter-process communication, payment systems, and experimental audio authentication, while providing integration support and adapting libraries based on team feedback.
- Contributed to a company-wide fork of the C++ and LUA Premake project, allowing compilation of cross-platform libraries with minimal configuration.
- Collaborated with technical writers to establish a styled Doxygen documentation flow for the Battle.net department, setting a standard for engineering documentation moving forward.
- Created an off-screen shared graphics memory rendering system using the Chromium Embedded Framework (CEF), integrating it into *World of Warcraft*, *Warcraft 3*, and *Starcraft: Remastered*.

- Dragon Quest XI S: Echoes of an Elusive Age - Definitive Edition (Square-Enix)
- Ghost Recon: Commander (Loot Drop)
- Harry Potter: Hogwarts Mystery (JamCity)
- Hearthstone (Blizzard)
- Heroes of the Storm (Blizzard)
- League of Legends (Riot Games)
- Life Is Strange: Before the Storm Remastered (Square-Enix)
- Life is Strange: True Colors (Square-Enix)
- Marvel's Avengers (Crystal Dynamics)
- Marvel's Guardians of the Galaxy (Square-Enix)
- Outriders (Square-Enix)
- Overwatch (Blizzard)
- Pettington Park (Loot Drop)
- Slots (Midverse Studios)
- [REDACTED] (Striking Distance Studios)
- Starcraft II: Legacy of the Void (Blizzard)
- Starcraft: Remastered (Blizzard)
- Tank Nation (Wormhole Games)
- The Callisto Protocol (Striking Distance Studios)
- Unannounced action game (Striking Distance Studios)
- Unannounced isometric extraction PvPvE adventure game (Phoenix Labs)
- Unannounced Lineage mobile game (NCSoft)
- Unannounced MOBA mobile game (JamCity)
- Unannounced multiplayer shooter game (Striking Distance Studios)
- World of Warcraft (Blizzard)

Education
Rochester Institute of Technology
- Master's of Information Technology
- Bachelor's of Information Technology

Open Source Contributions
- **eAthena**: Contributed to a C and MySQL server emulator for Ragnarok Online, enhancing server performance and functionality.
- **Premake**: Added features to the C++ and LUA project file generator.
- **lib-lifx**: Created a C++14 library for LIFX light bulbs, including a command-line interface.
- **psn-node**: Node.js library to fetch user data from the PlayStation Network.
- **MegamanAI**: Python application to autonomously play the first level of Megaman X using genetic algorithms.
- **Petnet-API-hacking**: Reverse-engineered the Petnet.io IoT pet feeder.

Projects
- **qrRO**: Built and maintained a Ragnarok Online server for 8 years, overseeing uptime, community engagement, bug fixes, upgrades, and customization of game assets.
- **PAX Enforcer**: Managed PC tournament operations, security, and interdepartmental liaison duties at Penny Arcade Expo (PAX).
- **GANG Voting System**: Developed a web-based voting system for the Game Audio Network Guild, facilitating award winner selection.
- **Capstone Project Mentor**: Guided a team of 5 students at Arizona State University through their game project, focusing on feature prioritization and version control.
- **Eagle Scout**: Achieved the rank of Eagle Scout in the Boy Scouts of America, demonstrating leadership and commitment.