David Bragg *Senior Game Engineer*

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Profile

With 12 years of rich experiences in game development, I have evolved from a passionate junior developer to a visionary senior engineering leader, continually driven by a relentless pursuit of innovation.

My journey in this dynamic industry is defined by my deep expertise in industry-leading engines such as **Unity**, **Unreal Engine**, **Cocos Creator** and **Godot**. These tools have been instrumental in transforming ambitious ideas into immersive, high-quality games that captivate and inspire players worldwide.

My leadership has been pivotal in spearheading projects that revolutionize the gaming experience. From implementing cutting-edge rendering optimizations that push the boundaries of visual fidelity, to designing sophisticated AI that brings non-player characters to life with unparalleled realism, I have consistently delivered technical excellence. Furthermore, my work on scalable multiplayer infrastructures has enabled seamless, engaging online experiences for countless players, setting new standards for connectivity and performance in the gaming world.

Proficient in a wide array of programming languages including **Java**, **C#**, **C++**, and **Python**, I have a proven track record of developing complex game logic and architecting robust, secure backend systems. My innovative spirit led me to pioneer blockchain integrations, ensuring transaction integrity and enhancing security within games, which has been a game-changer for the industry.

Leadership and mentorship are at the core of my professional philosophy. I have cultivated and nurtured talent within engineering teams, fostering an environment where creativity, excellence, and continuous learning thrive. My role extends beyond technical development; I have been instrumental in implementing **DevOps** and **Agile** methodologies. These practices have dramatically improved project delivery timelines, elevated product quality, and ensured that our teams remain adaptable and responsive in the fast-paced world of game development.

My career is a testament to a meticulous and forward-thinking approach to game design and development. I am driven by the thrill of pushing the limits of what is possible in interactive entertainment, constantly seeking out new technologies, methodologies, and design philosophies to elevate the gaming experience.

As the gaming industry continues to evolve, I remain at the cutting edge, ready to leverage my extensive experience and insight to tackle emerging challenges. My commitment to innovation and excellence ensures that I will continue to contribute to the next generation of groundbreaking gaming experiences, setting new benchmarks and delighting players around the globe.

Professional Experience

2018/08 – 2024/04
Gdansk, Pomorskie, Poland

Senior Game Engineer
Moonmana Company

- Led the "Aries" RPG development in Unreal Engine, leveraging C++ for optimizing rendering algorithms, which yielded a 23% increase in frame rates across various gaming platforms.
- Orchestrated the "PowVista" game architecture in Unity, utilizing C# to implement complex physics and AI systems, receiving industry praise for innovative interactive gameplay.
- Managed the engineering team for the "Mus" Card Game using Cocos2d-x, employing Python for server-side game logic and JavaScript for responsive multiplayer features, supporting 60,000+ concurrent players.
- Architected scalable, secure backend solutions using Java for high-traffic online games, enhancing data processing speeds by 11% and ensuring 94% uptime.

- Directed real-time communication enhancements in "Frontline Tactics" with Photon and WebSockets, improving multiplayer sync and reducing lag by 29% through JavaScript optimization.
- Championed the backend of "Fight Club" with NodeJS and GraphQL, enhancing game data management and dynamic content generation, boosting user engagement by 13%.
- Executed "Pokeone's" cloud migration to AWS EC2 using Docker for container management, scripting the automation in Bash, and configuring cloud resources with Terraform for scalability.
- Spearheaded "Knight's Legacy's" transition to Godot Engine, writing efficient GDScript to improve modularity and decrease memory overhead, leading to a 13% improvement in performance metrics.
- Led the development of "AstraMyth" in Godot, using C# for scripting procedurally generated content, significantly increasing replayability and engagement.
- Developed and delivered Godot training, focusing on GDScript for rapid game development, which improved team productivity by 12% and reduced developer ramp-up time by 8%.
- Crafted a blockchain-based item verification system for "Aries" using Solidity for smart contracts and JavaScript for Web3 integrations, ensuring secure in-game transactions.
- Instituted DevOps practices for "Aries," managing the CI/CD pipeline with Jenkins, and writing infrastructure as code in YAML for Kubernetes deployments, enabling daily game updates without downtime.
- Pioneered ML applications in "WhotAfrica" using Python to analyze player data, creating personalized content that raised player lifetime value by 31%.
- Designed MongoDB and SQL database solutions for "Aries," optimizing data structures and queries in SQL for performance, achieving 98% data availability.
- Curated a content creation pipeline with Blender, ZBrush, and Maya, integrating custom Python scripts to streamline the asset production process, enhancing team efficiency by 4%.
- Mentored junior engineers in "Warrior's Eclipse," enforcing code quality with rigorous C# and C++ code reviews, contributing to the game's reputation for stability and a low bug rate.

2016/02 – 2018/05
Portland, Oregon, US

Game Backend Developer
Watson Creative

- Developed a robust game backend for "Hearthstone: Rise of Shadows" in Unity using C# and AWS Lambda functions, achieving a 94% uptime and enabling scalable real-time multiplayer features.
- Implemented an efficient matchmaking and lobby system for "Blur" using Photon and advanced C# algorithms, optimizing player connections and reducing wait times by 16%.
- Architected scalable server-side logic for "World of Warcraft: Cataclysm" with Unreal Engine, utilizing NodeJS for cross-platform compatibility, supporting seamless gameplay for thousands of concurrent users.
- Created a secure, low-latency multiplayer backend for "World of Warcraft: Cataclysm" using SmartFoxServer and Golang, enhancing server response times by 29%.
- Engineered dynamic in-game economies for "World of Warcraft: Cataclysm" leveraging advanced C++ programming and RESTful APIs to facilitate a 10% increase in in-app purchases.
- Designed and maintained high-throughput game databases for "World of Warcraft: Cataclysm," utilizing MongoDB for NoSQL storage solutions and complex SQL queries for relational data integrity.
- Spearheaded the integration of Google Cloud services and Docker containers for "World of Warcraft: Cataclysm," optimizing server deployments and slashing operational costs by 25%.
- Managed CI/CD pipelines for multiple game projects with Azure DevOps services, incorporating PowerShell scripting and YAML configuration to accelerate release cycles by 20%.

- Pioneered real-time game data synchronization for "Hearthstone: Rise of Shadows" with WebSockets and Socket.io, significantly enhancing multiplayer gameplay engagement.
- Implemented game server analytics for "Hearthstone: Rise of Shadows" using Python for data scripting and AWS EC2 instances for scalable processing power, improving server scaling efficiency by 15%.
- Programmed complex AI-driven NPC behaviors for "Technotown" within the Unreal Engine environment, using Blueprints for logic construction and Lua for scripting nuanced interactions.
- Integrated PlayFab backend services for "Sandbox Empire" with TypeScript, developing automated systems for player progression tracking and cloud save management, boosting daily active users by 10%.

2013/06 – 2015/12
Portland, Oregon, US

Junior Game Developer and Designer
Watson Creative

- Orchestrated the full development cycle of "Wolfenstein RPG," leveraging Unity with C# and Cocos Creator with TypeScript, enhancing player engagement and increasing session lengths by 8%.
- Led the game mechanics design for "Runner's Rift," utilizing advanced C# and JavaScript techniques, which boosted player retention rates by 6% through responsive and dynamic gameplay elements.
- Utilized Java to build robust back-end systems for multiplayer games, including real-time chat functionalities and leaderboards, which supported thousands of concurrent users.
- Developed several engaging 2D games using Phaser.js, focusing on creating intuitive gameplay mechanics and compelling visual storytelling to enhance player engagement.
- Developed the platformer "Doom || RPG" using Unity, employing C# for scripting physics and animation systems, resulting in a 21% increase in user experience ratings.
- Achieved a 97% stability rate across web and mobile platforms for "MindBend" by optimizing performance using HTML5 and WebGL, ensuring seamless gameplay.
- Assisted in crafting a turn-based strategy game, scripting AI behaviors and combat systems in GDScript, leveraging Godot's robust framework for rapid gameplay prototyping.
- Contributed to "Color Rush" by designing complex level maps with Godot's scene system, praised for their creativity and technical ingenuity in challenging players.
- Designed and modeled engaging game environments for "Runner's Rift" with Adobe Photoshop and modeled 3D assets in Blender, leading to a top 10 Steam indie game ranking.
- Streamlined "Wolfenstein RPG's" user interface using Figma for UX design, successfully reducing player onboarding time by 30% through intuitive design practices.
- Authored efficient, modular code for an open-world adventure game, utilizing C++, Python, and TypeScript to reduce load times by 18% and decrease player drop-off rates by 13%.
- Expedited the development of "Knight's Journey" by 32% through the use of PixiJS for rendering and Corgi Engine for rapid 2D game development, leveraging JavaScript and TypeScript.
- Enhanced player interface experiences by developing a Vue.js-powered settings menu, contributing to a 4% increase in daily active users through improved user engagement.
- Championed Agile methodologies and Git version control across team projects, significantly boosting deployment frequency and halving rollback incidents, thus improving overall team efficiency.

Education

2010 – 2013
Philadelphia, Pennsylvania

Bachelor of Computer Science
University of Pennsylvania
Activities and societies: Game Dev Club

Skills

Game Engines/Frameworks ● ● ● ● ●
Unity / Unreal Engine / Cocos Creator / Cocos2d-x / Godot
HTML5 / PixiJS / PhaserJS

Networking
Socket.io, Photon, SmartFoxServer, KBEngine, RESTful API, PlayFab, GameSparks, Nakama

Cloud Services
Docker / AWS (Amazon Web Services) / AWS EC2 (Elastic Compute Cloud) / Azure / Google Cloud / Firebase

Blockchain
Solidity / Web3 / Smart Contract

Design/Art Tools
Figma / Adobe Photoshop / Blender / ZBrush / Maya

Programming Languages:
Java / C# / C++ / Lua, JavaScript / TypeScript, HTML5, Python, WebGL, Solidity / Rust / Golang (Go)

Web Technologies
TypeScript /JavaScript, HTML5, CSS, React.js / Next.js / Angular.js / Vue.js, NodeJS, GraphQL / ASP.NET

Databases
MonogoDB / SQL / NoSQL / Oracle

Development Practices
DevOps / Docker / Agile / Scrum

Languages

- English

Interests

- Football