WILLIAM MCCARTY

Senior Software Engineer

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SUMMARY

I apply my passion and expertise in development to create engaging and immersive gaming experiences. I have been in the gaming industry for over nine years, and I have worked on both the server and client sides of seven games released to millions of users worldwide. Not only that, but I have contributed to numerous features and systems, ranging from progression and reward mechanisms to performance optimization and scalability solutions. I have also taken on leadership and mentoring roles, helping to drive the product vision and quality, as well as sharing my knowledge and skills with my peers and junior developers. I am always eager to learn new techniques and tools, and I enjoy working on my own projects and games in my spare time. My goal is to deliver products that are not only fun and entertaining, but also reliable, secure, and user-friendly.

EXPERIENCE

Senior Software Engineer
Electronic Arts (Glu)

11/2017 - 03/2024
Redwood City, CA

- **Released Games: Tap Sports Baseball '21 - `23, Deer Hunter World, WWE Universe**
- Orchestrated the migration of critical systems pertaining to awards, progression, and gameplay processing from client-side to server-side operations, optimizing performance and enhancing game integrity during live gameplay sessions
- Drove improvements in infrastructure efficiency by leveraging cutting-edge technologies such as Docker, Kubernetes, and MongoDB
- Pioneered the development and implementation of backend code to meticulously simulate baseball gameplay mechanics from the client-side, achieving a seamless 100% transfer of gameplay elements, ensuring fair play and safeguarding against fraudulent activities
- Developed a robust progression system to facilitate user advancement through the PVE story, leveraging efficient data tables and relationships for seamless progress tracking
- Implemented a versatile awarding system, enabling streamlined processing of various currency types and amounts on the backend, while supporting dynamic item groupings and loot pools for enhanced usage
- Engineered a comprehensive weapon inventory and upgrade system, enriching player customization options and driving deeper immersion within the game environment
- Architected backend infrastructure for game creation and termination, optimizing game management processes and ensuring smooth gameplay experiences from start to finish
- Implemented a caching system to facilitate efficient communication of real-time data changes between servers and clients, enhancing system responsiveness and user experience
- Engineered a recycling system within the player select interface, optimizing memory usage by seamlessly reusing existing objects through the creation of a dynamic loading and unloading mechanism for player assets as they are scrolled

Game Developer
Galxyz

03/2016 - 10/2017
Mountain View, CA

- **Released Game: Blue Apprentice**
- Facilitated the seamless integration of the parent app into the game flow, enhancing the overall user experience and accessibility
- Engineered a customization system within the game, streamlining asset updates and additions for internal use while offering flexible player customization options
- Integrated a TTS streaming system to enable dynamic downloading and playback of text-to-speech content within the game environment, enhancing accessibility and immersion for users
- Optimized the saving/loading system within the game by implementing level-based loading triggers and developing a flexible data modification system to address user issues, resulting in a streamlined experience with 0 download delay
- Enhanced UI components throughout the app utilizing Unity's UI system, contributing to a more intuitive and visually appealing user interface
- Designed and implemented a quiz system utilized for parent quizzes and quiz mini-games, allowing for dynamic question addition from the server for ongoing engagement and educational value

SKILLS

C/C++ · C# · Java · Unity 3D · AWS · DynamoDB · Spring Boot · Redis · MongoDB · EBS · EC2 · S3 · Docker · Kubernetes · Maven · Gradle · Unreal Engine · Git · Perforce · Scala · Python · JavaScript · Lua · ProtoBuf · CloudSearch · Data Structures · RESTful API · Android · iOS · XAML · XML · Prolog · Perl · Ruby · HTML · CSS · Mercurial · Dropbox · SVN

STRENGTHS

💎 Passion for Game Development

As an avid gamer, I'm driven by my passion for immersive experiences, motivating me to bring that same level of dedication and creativity to my professional endeavors. This deep-seated love for gaming inspires me to go above and beyond with every project I work on.

⚙ Reliable, proactive contributor

I consistently rise to the occasion, tackling challenges with determination and resilience, regardless of their complexity or difficulty.

💡 Curious intellect

I possess an insatiable thirst for knowledge, perpetually seeking to expand my understanding and refine my existing skills.

EDUCATION

Master of Science in Games & Playable Media

University of California Santa Cruz
08/2014

Bachelor of Science in Computer Science

San José State University
05/2013

EXPERIENCE

Developer	12/2014 - 03/2016

LG Dev Shop

Los Gatos, CA

- **Released Game: Darblez**
- Orchestrated the integration of the front-end and back-end registration system, streamlining user registration processes and enhancing user experience
- Seamlessly integrated various registration and login methods, including Guest, Email, Facebook, Game Center, and Google Play, enhancing accessibility and user engagement
- Drove UI development throughout the app using the Unity plugin NGUI, ensuring visually appealing and user-friendly interfaces that adapt seamlessly to different device ratios
- Enabled dynamic UI element modification from the server, enhancing flexibility and ease of customization
- Established a robust network structure for the client, providing flexibility to connect to different servers based on project stage and enabling smooth communication between client and server through HTTP requests
- Contributed significantly to accurately managing scores and user data before and after matches, ensuring a seamless gaming experience for users