Ethan Vander Horn

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Full-stack XR Unity Developer with 8+ years of experience at a VC-backed Startup building XR Molecular Modeling Software used by thousands of Pharmaceutical Scientists.
Currently seeking a Senior Unity Developer Role either Remote or in San Diego, CA

Skills

Languages: C#, Go, Python
Software Development: Unity, UIToolkit, ReactiveX, VR, CI, Git, OOP, Jira, Kanban, Agile, Coda, OculusSDK, ViveSDK
Technical Communication: Skilled in conveying complex ideas to technical and non-technical stakeholders, facilitating effective collaboration

Experience

Nanome Senior Unity Developer (2022-2024) | Unity Developer (2018-2022)   2018– 2024
Nanome is a VC-backed startup offering XR molecular modeling software, used by scientists at over half of leading pharmaceutical companies. I played a key role as one of the first ten employees, developing the product from early stages to commercialization and scaling in the cheminformatics industry.

- Rapidly iterated on a **Unity** application from **initial idea phase to revenue generating product**
- **Worked directly with customers and industry experts**, playing a major role in **identifying and prioritizing features** for the app to meet specific real-world needs and requirements to deliver real user value
- Collaborated with developers, designers, and specialists to create user-focused solutions
- Developed and maintained **cross-platform collaboration apps** for PC and Standalone VR
- Established **advanced P2P networking** through **Photon** for real-time collaboration in a challenging use-case
- Developed a **Go server** using **Amazon Web Services (EC2, S3, RDS)** for business logic and persistent data storage
- Early adopter of **Unity's UIToolkit** for both editor and runtime interfaces, overcoming the limitations of its early release stage and ensuring maintainable and scalable user interfaces
- Used **ReactiveX/UniRX** for asynchronous and functional programming, improving code maintainability by reducing side effects and simplifying complex event-driven workflows through declarative data streams.
- Implemented **Continuous Integration and Deployment** processes using Jenkins and Unity build compilation, incorporating unit tests and automated pipelines to enhance reliability and accelerate development speed
- Applied **Clean Architecture principles** alongside **Dependency Injection** and adopted CQRS principles to support efficient, data-centric workflows, ensuring modularity and refactorability
- R&D and integration of a 3rd party in-app Web Browser for Android and Windows using **Vuplex** and video-encoding for in-app networked screen sharing
- **Performed diverse application optimizations** from audio/P2P voice compression using **Opus**, memory runtime management, and **profiling-based optimization** to enhance application performance in a resource-constrained environment (standalone XR devices)
- Created an advanced interactive 3D Playback System for real-time recording of interactions, voice, and commands, featuring playback options like rewinding and fast-forwarding
- Developed a comprehensive Python plugin library, enabling external developers to programmatically access the molecular modeling app, integrate proprietary industry tools, and create user-generated menus that embed seamlessly into the Nanome interface
- **As a sole developer, ideated and built** a GUI-based menu-building companion app allowing non programmers to create menus for their plugins that were embeddable to the XR platform
- **Mentored interns** by managing tasks, providing code support, and offering feedback through code reviews

Nanome Junior Unity Developer   2016 – 2018
- Developed Calcflow, open-source software used at UC San Diego to interactively teach high-level mathematics in VR

Education

University of California San Diego – BS in Computer Science (Cum Laude)   2018