**­Tom Freehill**

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***Senior Developer***

**OBJECTIVE**

Create impactful gameplay experiences that give players desire to share what they’ve learned while leveraging a deep understanding of, and passion for, the game industry.

**SKILLS­­**

**Programming**

* C#, C/C++
* Python, JavaScript, Java, VBA
* Unity Shader Graph, HLSL, Cg, SDL 2
* WPF, WiX Toolset
* XML, JSON
* Jenkins CI/CD

**Game Design**

* Design Patterns, System Architecture
* AI Pathfinding, Finite State Machines
* Collision & physics design
* Game engine animation
* UI/UX design and integration
* Localization tools and integration
* Rapid prototyping, QA testing, and iteration

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**Leadership**

* Constructive feedback, delegation, and lead by example
* Agile project planning and execution
* Train and mentor other developers of all levels
* Cross-functional communication

**Software**

* Visual Studio
* Git, Perforce
* JIRA, Confluence, HackNPlan
* Adobe Photoshop
* Audacity
* Blender
* Microsoft Office, SharePoint, Google Docs

**Game Engines**

* Unity (fluent)
* Unreal Engine 4 (familiar)

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**EXPERIENCE**

**QUALITY EXECUTIVE PARTNERS, Senior Developer  *2021 - present***

* ***Virtuosi*** *(HTC Vive, Oculus Rift, Shipped 2022)* 
  + Lead software developer of a new in-house virtual reality development team for a suite of pharmaceutical job training simulations.
  + Trained a team of five (5) junior, mid, and senior developers on the entire Virtuosi suite of products, code, coding standards, quality validation, and learning management system (LMS).
  + Build, test, documented, and shipped the latest suite of three (3) VR training simulations.
  + Collaborated with subject matter experts (SMEs) to ensure all training material complied with industry standards, while also teaching and learning to speak each other's language (pharma and software).
  + Developed a custom Windows Bundle installer using WiX, improved a custom WPF application designed for end-users to easily complete VR training, and improved localization and LMS tooling using VBA and Python.

**FOUNDRY 45***,* **Senior Developer *2019 – 2021***

* ***Overall activities included:***
  + Advanced the core technologies used by the company to streamline the development pipeline and deliver to clients with increased speed and quality.
  + Lead several projects directly from start to ship, including working with SMEs to hone the material being taught and ensure it complied with industry standards.
  + Helped grow the team in the candidate search, technical interview, and hiring process.
  + On-boarded new senior developers, and mentored junior developers, both with the goal of goal of growing them to lead projects.
  + Localization, validation, functional requirements documentation, and quality assurance of many products.
* ***Virtuosi*** *(HTC Vive, Oculus Rift, Shipped 2020)*
  + Collaborated with a team of senior developers, artists, QA, analysts, and SMEs to develop 11+ Virtual Reality job training simulations that are now used worldwide by several top pharma companies.
* ***Unannounced VR Customer Service Training*** *(Oculus Go, Shipped 2019)*
  + Built a custom visual scripting language to parse an XML graph into video, audio, and interactive text sequences.
  + Delivered project ahead of schedule and above expectations.
* ***Unannounced VR International Medical Aid Training*** *(Oculus Go, Shipped 2019)*
  + Leveraged the visual scripting language developed in the Customer Service Training app to accelerate delivery to only a few weeks, and the delivered project showed equally rapid results when deployed to end-users.
* ***Additional Unannounced Projects*** 
  + VR contact lens production machine maintenance, VR driver safety, VR shipping truck load/unload safety

**NINJA MULTIMEDIA, Interactive Developer *2018 - 2019***

* ***Dropt*** *(Android, iOS, Shipped 2018)*
  + GPS-located interactive AR ads/coupons app, where hundreds of users competed in real time for limited available items to capture and use at participating businesses.
  + Scripted local and remote SQL database APIs to give the app a significantly wider audience, while maintaining flexibility and stability in a live production environment.
  + Collaborated with clients, and in-house art, to build the polished product design (UI) and user experience (UX).
* ***Unannounced AR Refrigeration Unit Tech Demo*** *(iOS, Shipped 2018)*
  + Augmented Reality overlay on a 6-foot long model that showed real-time 3D models and animations of an industrial refrigeration unit’s inner workings.
  + Scripted a runtime AR marker calibration system that allowed near-invisible AR markers to be placed by the end-user around (not on) the large model after transport to a conference. The client could quickly setup and calibrate on-site with minimal tech support.
* ***Unannounced VR and AR Furniture Demo*** *(Oculus Go, Android, iOS, Shipped 2018)*
  + Owned all scripting, UI, and UX with feedback from the client, delivered on three platforms for both augmented and virtual reality in two weeks.
* ***Unannounced AR Mini-Game*** *(Android, iOS, Shipped 2018)*
  + Real-time AR battle mini-game built for a local game studio’s event at the Georgia World Congress Center.
  + Ported studio-provided assets (models, animations, particles, UI, audio) from Unreal Engine 3 to Unity.
  + Built UI, UX, Bluetooth transmitter AR location mapping, push notification system, and offline prize encryption and distribution.

**SOLIDIA TECHNOLOGIES INC., Research and Development, Production Technician *2012 – 2014***

* Planned and executed experiments to develop novel, potentially carbon negative cement technologies.
* Assisted with information technology needs of the company.
* Improved quality of final products in a dynamic experimentation environment.
* Maintained constant information exchange with every team member for efficient production of meaningful results.
* Documented and presented lab experiment results at weekly team meetings.
* Extensive work with many industrial chemicals and MSDS, as well as constant 5S safety and housekeeping compliance.

**EDUCATION**

**New Jersey Institute of Technology**

* **Bachelor of Science** in Mechanical Engineering *Graduated 2016*
* **Cum Laude** GPA3.56
* **Top of the Class** Kinematics of Machinery, Communication for Engineers, Dynamics of Spaceflight, Aerodynamics, Robotics & Programmable Logic Controllers, Game Mod Development