Gordon Lee   **Résumé**

Software Engineer

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SUMMARY:

- 5+ years experience with C/C++
- 5+ years experience with Unity3D
- 1+ years experience with Python
- 3+ years experience with SQL
- 3+ years experience with WPF/XAML

- 5+ years experience with C#
- 2+ years experience with Qt
- 3+ years experience with Java/JSON
- 3+ years experience with LUA
- 2+ years experience with JS/TS

WORK EXPERIENCE:

Lightfox Games, Seattle, WA   Winter 2021 - Present
Senior Software Engineer

Knight's Edge (iOS / Android)
- Worked on gameplay features such as new ability actions and effects and special match modifiers like bonuses and challenges.
- Worked on server backend features using Google Firebase for creating matchmaking tickets, real time guild chat, and account deletion cleanup.
- Implemented server features like setting up weekly tournament game modes, private custom matches, and match results.
- Added new AI logic and debugging tools for designers to use.
- Worked closely with UI/UX designers to create new UI for guilds, match results, and private custom matches.
- Technologies used: C#, Unity, JavaScript/TypeScript, Google Firebase, Colyseus Arena, Retool, Google Blockly, Git

Tenacious Entertainment, Bellevue, WA   Summer 2018 - Winter 2021
Lead Software Engineer

Battleverse Champions (iOS / Android)
- Worked as a lead software engineer on a small team for many parts of the game such as gameplay, graphics, animations, AI, UI, input, tools, and helped on networking.
- Implemented the game engine based in Unity and all the game modes such as one-on-one deathmatch, 4 player hold the ball, and 1 versus many score attack.
- Implemented the gameplay and tools for the creation of all the character abilities with triggers, conditions, and actions for designers to create many different types of abilities.
- Implemented AI for single player bots that control like players with different variables to move around, attack, and capture important objectives.
- Implemented the UI and menus to select different characters, their ability loadout, previewing abilities, and tutorials.
- Implemented the challenges system for daily/weekly/monthly challenges for players to complete certain objectives for rewards.
- Helped to build the game together with the networking engineer, to be played online with a server and matchmaking using Amazon Web Services (AWS), and implement the gameplay of the network messages.
- Technologies used: C#, Unity, JSON, Skillz, AWS, Git

Turn 10 Studios, Redmond, WA   Fall 2016 - Spring 2018
Software Engineer

Forza Motorsport 7 (Windows / Xbox One)
Published by **Microsoft Game Studios**
- Worked as a software engineer developer on the UI/UX team but also very closely with Engine, Gameplay, Multiplayer, Services, Tools and Cinematics teams.

- Helped to implement the lobby background loading and game mode state machine system. Was the owner of Freeplay and Splitscreen game modes.
- Implemented the ability for profiles to automatically receive cars that are entitled through downloadable content and show a popup about the newly received cars.
- Worked on Windows and Xbox video options, saving correct settings to profile and defaulting to optimized system options for options such as HDR.
- Implemented telemetry events for data analysis in various systems such as Career, Car Select, Forzathon, and more.
- Fixed many bugs in existing systems such as Car Select, Main Menu and Options, Post Race Rewards Sequence, Rivals, Multiplayer Lobbies, Livery Editor, and more.
- Technologies used: C++, C#, XAML, SQL, XML, Perforce

Harebrained Schemes, Kirkland, WA   Summer 2011 - Fall 2016
Software Engineer

Necropolis (Windows / Mac / PS4 / Xbox One)
Parternship with **Bandai Namco**
- Worked on gameplay features like stats, traits, combat calculations, input, objectives, and enemy behavior to make them feel unique.
- Made the animation system using Unity's Mecanim and worked with animators and designers to tie together combat data and animations.
- Implemented enemy combat AI and their state machines with some work on their pathfinding and NavMesh.
- Worked on tools for designers to get data into the game.
- Helped with getting some networking features up and running like projectiles and objectives.
- Technologies used: C#, Unity3D, Google Spreadsheets, JIRA, Git

Golem Arcana (iOS / Android)
Kickstarter
- Implemented use of Google API for designers to create data into the cloud and then parse into JSON.
- Made the process to automate the creation of paper materials such as the cards and base stickers from data for the print factories.
- Worked on UI of out-of-game menus and in-game menus.
- Helped to implement the gameplay and abilities that Golems, Knights, Relics, and Ancient Ones use.
- Technologies used: C#, Unity3D, JSON, SVG, HTML, Google API, Git

Shadowrun: Dragonfall (Windows / Mac / Linux)
Kickstarter
- Implemented new features in the editor and in conversation systems.
- Lots of bug fixing in all areas of the game.
- Technologies used: C++, Qt, C#, Unity3D, ProtoBuf, Python, ANT, SVN

Shadowrun Returns (Windows / Mac / Linux / iOS / Android)
Kickstarter
- Implemented Google Protocol Buffers (ProtoBuf) in editor C++ and Unity3D game C# for all game data.
- Worked in Qt C++ to help build the level editor, the prop editor, character editor, and conversation editor.
- Worked in Unity3D C# on the sound manager, animation controllers, fog of war, visibility casting, and UI.
- Implemented most of the UI such as conversations, main menu, PDA, store, equip, hiring, level up.
- Technologies used: C++, Qt, C#, Unity3D, ProtoBuf, Python, ANT, Git

Strikefleet Omega (iOS / Android)
Published by **Six Waves**
- Implemented most of the UI, main menu, store screens for iOS and Android platforms.

- Helped on integrating the use of Google Spreadsheets to automatically update game design features and mechanics.
- Hooked up achievements and other mobile device features.
- Worked on various features such as warping ships in, mining, asteroids, touch input, game loop, resolution resizing.
- Technologies used: LUA, MOAI, Java, iPad, iPhone, Android, Google Spreadsheets, ANT, Git

Crimson: Steam Pirates (iOS)
Published by **Bungie Aerospace Corporation**
- Built the entire level editor in WPF and C# that all designers used to make all the levels.
- Level editor can place and edit player ships, place terrain, create locations, paths, flags, and create triggers for game logic.
- Implemented most of the game shell and UI such as main menu and detail cards.
- Wrote much of the trigger-based game logic.
- Worked with Bungie's test team to fix bugs.
- Technologies used: C#, WPF/XAML, LUA, MOAI, iPad, iPhone, SVN

Go Go Kiddo, Bellevue, WA   Spring 2011
Software Engineer

Go Go Kiddo (iOS / Android)
- Built various tools and editors using WPF/XAML, C#, OpenGL, and Box2D.
- Built a level editor for a 2D physics simulation game. The level editor included working simulation of game physics to test levels within the editor. Imported and exported levels, objects, and animation data to LUA. Fully customizable objects using the editor.
- Built a tracing editor for a number and letter tracing game. The tracing editor used spline creation and editing, and included demo tracing and user tracing simulation.
- Made the number and letter tracing game in LUA using MOAI for mobile platforms.
- Technologies used: C#, WPF/XAML, LUA, Java, Box2D, MOAI, iPad, iPhone, Android, SVN

EDUCATION:
DigiPen Institute of Technology, Redmond, WA   2006-2010
Bachelor of Science in Real Time Interactive Simulation with a Minor in Math

SKILLS:
- **Programming Languages**:
  - Proficient in C/C++, C#, JS/TS, LUA, WPF/XAML
  - Familiar with Python, Java, JSON, SQL, ProtoBuf, HTML
- **Tools and Systems**: Unity3D, Qt, Microsoft Visual Studio, MonoDevelop, Git, Perforce, SVN, JIRA, Google API, Google Firebase
- **Programming**: Gameplay, Engine Architecture, Tools, UI/UX, Animations, AI, Audio, Networking, Data Structures, Algorithms, Vector Math, 3D Collisions, Path Finding
- **Testing**: Ad Hoc, Stress, Boundaries, Load, Inaccessibility, Functionality, Localization, BVT
- **Social:**
  - Worked in a small team within a big studio on a AAA game title.
  - Worked in small teams of 10-25 people and has been lead engineer on projects.
  - Code reviews with other engineers.
  - Worked closely with other engineers, game designers, animators, modelers, riggers, environmental artists to figure out what we can and can't do or alternatives and in what time.