Jacob D Taylor

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Senior game developer with a background in computer science. 4+ years working in c++ on a high fidelity live release MMO. Particularly interested in gameplay systems development and cooperative multiplayer.

Employment History

Cloud Imperium Games: Working on Star Citizen MMO in c++	Apr 2024 - Present
Senior Gameplay programmer, feature owner of 6+ features, leading multi-discipline initiative	
Gameplay programmer 3, feature owner of 5+ features, mentor to Juniors	Dec 2022 - Apr 2024
Gameplay programmer 2, feature owner of 4+ features	Dec 2021 - Dec 2022
Gameplay programmer 1, feature owner of 2+ features	Jan 2021 - Dec2021
Reference: Thorsten Leimann, Lead System Designer tleimann.de	
Amazon: Software Development Engineer intern, web-dev in Java and JS	Jun 2019 - Sep 2019

Education

MSc Computer Games Technology: City University of London, Distinction	Sep 2019 - Oct 2020
BSc Computer Science: University of Warwick, 1st Class	Oct 2016 - Sep 2019

Technical Skills

Programming languages: C++, C#, Java, Python, GLSL, Javascript
Game Technologies: Star Engine, Unity, OpenGL, Monogame
Misc: Event-driven and data-driven architecture, multiplayer networking, parallel processing, code reviewing, performance optimisation, unit testing, procedural generation

Key Projects

- **Star Citizen MMO**
  - Multiple appearances on both live and pre-recorded company media discussing my features, including live on-stage presentation to 4,000+ customers at company convention.
  - In-development Crafting system. Intricate interactions with existing features, planning work for 3+ devs within my team, leading 5+ downstream dependencies in multi-discipline initiative.
  - Loot Generation system. Highly data-driven, handles rarity, container size constraints, special events, and mission-specific loot. Comprehensive dev tool suite.
  - Salvage profession. "Hull scraping" and "structural salvage" released across 2 patches, multiplayer gameplay, VFX, SFX and UI hooks, designer tools for balancing.
  - Maintainer of Room System and Harvestable System. Continuous support for design & engine changes, production of dev tools for designers and QA. Code reviewing related work.
  - Close involvement with Production for planning, triage, estimation and team management.
- **Voxel Terrain Engine for Unity (MSc project)**:
  - Simplex noise heightmaps, biomes, caves, ores and trees, procedural mesh generation.
  - Unity Job System and Burst compiler for parallel processing.
  - Extensive unit tests via Unity Test Framework.
- **"Orbital" 2D arcade shooter/ tower defence hybrid made in Unity, published on Itch.io**
  - Data driven unit stats, buffs, and upgrades systems, multiple enemy and allied unit types.

Hobbies & Interests

In my free time I like to work on my own game projects, sing, climb, work out and swim. I'm always looking for new exciting experiences to try which have so far included indoor skydiving, flying 3 different types of aircraft, scuba diving, and blacksmithing my own sword.