Hakan Manne Cederskoog

US Permanent Resident / EU Citizen

6 Years Experience

Programmer / Designer

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Software Knowledge

- C++ / C# / C
- Unity 5 / 2019
- Unreal Engine 4
- Shaders / HLSL
- Blender / 3D Modeling
- Zbrush
- Substance Painter / Designer
- Photoshop
- Perforce / Git

Commercial Games (9)

- Graven (PC/Consoles) - Gameplay Engineer
- Earthbreakers (PC) - Gameplay Engineer, Technical Artist
- El Taco Diablo (PC) - Code, Art, Design
- Eastshade (PC) - Programmer C#
- A Way Out (PC/PS4/XO) - Programmer C++
- theHunter: COTW (PC) - Programmer C++
- Cities: Skylines (PC) - QA Tester
- Bloodsports.TV (PC) - QA Tester
- Star Wars: Battlefront (PC) - QA Tester

Professional Experience

3D Realms / Slipgate Ironworks — Gameplay Programmer (Freelance) — Oct. 2020 - Dec. 2020

Making gameplay systems and implementing co-op multiplayer for Graven, an old school shooter in the veins of Heretic.

- Refactoring systems to work for **multiplayer co-op**.
- Improving and creating new **AI** for existing enemies.
- Gameplay coding (Weapons, Abilities, UI).
- **Level Loading Manager,** making it easy for level designers to set up massive interconnected levels.

Petroglyph Games — Unreal Engineer (Full time) — Jan. 2020 - Oct. 2020

Working as a **Gameplay Engineer** on **Earthbreakers,** implementing gameplay systems with a focus on weapons and abilities, along with a role as **Technical Artist** helping the Animation and VFX team to implement features such as Cel shading and weapon handling. Heavy focus on **Multiplayer** with client side prediction to minimize latency issues.

- Weapon and Projectile Systems, fully deterministic for client/server syncing.
- Abilities and Inventory systems.
- Character Movement.
- Crash Reporter to send to the company server.
- **VFX**, Procedural Animations and help achieve art style.

Self-employed — El Taco Diablo (Solo Developer) — Sep. 2016 - Jan. 2020

Solo developed **El Taco Diablo,** a stand still arena shooter focusing on player accuracy. Created in **Unity** with **C#**. The project was a way for me to broaden my understanding of game development across different areas.

- **3D Modeling** and **Sculpting** (Blender and ZBrush).
- Texturing (Substance Painter).
- **VFX**, custom **shaders**.
- Code (C#).
- **Design**, balancing and pacing.
- Sound design.

- **Steam** integration.

Eastshade Studios — C# Programmer (Freelance) — Jun. 2018 – Jan. 2019

Worked on **Eastshade** (**90% positive rating** on Steam with 1600 reviews and #38 of **Polygon's Top 50 best games of 2019**) as a freelance programmer. The game is about a traveling artist, capturing the world on canvas using an artist's easel.

- Created a **fishing minigame**, using game code within **Eastshade's API**.
- Made a realistic fish A.I. that reacts to player's choice of bait and lure. When caught the fish will try anything to break free.
- Custom **fishing rod I.K.** to give the appearance of bending with forces.
- Custom **fishing line physics** to show current line tension and interactions with world ex. Collision and water flow.
- Extending **tools** for Quest Designers to implement more interactions and events.

Golden Moose Studios — Programmer / Designer (Co-owner) — Sep. 2016 – Dec. 2018

I co-founded an indie studio, developing games while traveling through Southeast Asia.

- Responsible for implementing features in **Unity** using **C#.**
- **Rapid prototyping** to try ideas and features to determine what could work.
- Built company reusable systems (ex. **Player Attributes, Random Distribution System, Save/Load**).
- Created **Unity editor tools** for designer's ease of use and shared functionalities (Scriptable Objects Data Table).
- Handled contact with art **contractors** for 3D models, rigging, animation and verified provided resources.

Avalanche Studios — C++ Programmer (Internship) — Jun. 2016 – Sep. 2016

theHunter: Call of the Wild (**82% positive rating on Steam** with **26,000 reviews**) is a hunting simulator focused on being as realistic as possible. Avalanche uses an in-house engine called APEX.

- Extended **tools** so designers could easily specify where animals spawn in the world.
- I implemented **player statistics** sent to a database so developers get information about what players are doing in the game world and can improve the game according to this data.
- Learned **Python** to make a **Maya export tool** for placing and marking locations in models, ex. where a bird can spawn on a tree branch.

Hazelight — C++ Programmer (Internship) — Jan. 2016 – Jun. 2016

A Way Out (**Winner** of British Academy Games Award for **Best Multiplayer**) a co-op only, adventure/action game made using **Unreal Engine 4**. The position required **expert C++/visual scripting (Blueprint)** knowledge.

- Responsible for **Enemy A.I.** and Team Communications between enemies.
- Worked closely with the art team to implement UI in world and interaction points.
- Engine modification to support split screen with the world UI system.
- All code written needed to support **multiplayer,** sending and syncing of world states and variables.
- Collaborated with other programmers, implementing shooting mechanics and player auto-aim system.

Basset Labs AB — Solution Consultant (Fulltime) — 2011 – 2014

Basset works within the Telecom industry supplying the need for customized software. My expertise was in Roaming and Mediation backend systems.

- **Designed and implemented solutions** within customers' existing systems.
- Estimated work and created **quotes** for customers.
- Set up **logic and interactions with SQL Databases**.

- Creating automatic **reports** from SQL data.
- System **maintenance** and problem solving.
- Implemented **decoding modules** using an in-house **C-based API**.
- Customer consultation.

Education

Futuregames Academy — **Game Design Program** — **2014 – 2016**

A tailor-made education designed to address the needs within the game development industry, driven by leading companies such as **DICE, Paradox, Starbreeze**. Created three games during my time at Futuregames, where I served as lead programmer on all three.

Game Projects

The Hungry Maw from Outer Space — **Lead Programmer - Unreal Engine 4 - Visual Scripting (Blueprints)**

In this game, the player devours the world as a flying tentacle alien where eating humans keeps the player alive. Set in an 80's horror movie. This game was made in **Unreal Engine 4** in 4 weeks with a team of 7 people.

- Nominated "**Game of the Year**" by Swedish Game Awards 2015.
- Heavy **optimization** to handle thousands of A.I. people on the screen at once.
- Worked closely with the tech artist to create a massive randomized city.
- Dynamic randomized **objectives/missions**.
- Created **VFX** for weapons such as the laser leaving trails, allowing players to make their mark on the world by drawing on houses and streets.

Coming Home — **Lead Programmer - Unity 5 - C#**

In this classic, point n' click adventure game with a day and night twist, players discover a pirate world full of interesting characters. Made in **Unity 5** in 7 weeks with a team of 9 people.

- Created an **API** for designers to easily create puzzles and interactions within the world.
- Made a **Save/Load** system, integrated into the API.
- Created an **Item database** so designers could implement new items and setup animations quickly.
- **Layered scene graph** setting up transitions points between scenes for both day and night.
- I also did **Level Design and puzzle scripting** for the shop and cave scenes in the game.

Royal Institute of Technology — **Computer Science** — **2003 – 2006**

Computer Science and Electronics. Focused on electronic construction and programming in **C** and **Java.** Signal processing with a heavy math focus. VHDL to create our own working CPU.

Languages

- Swedish (Native)
- English (Fluent)

Hobbies

- Mead Making
- Hiking
- Playing Games

Favorite Games

- Bloodborne / Darksouls Series
- Blood
- Dishonored 2
- Resident Evil