## Eric Sechen

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## Experience

## Game Developer

August 2024 - present

Realistic Golf on Roblox platform — Creator & Sole Developer

URL: https://www.roblox.com/games/84956402848349/Realistic-Golf

- Designed, coded, and launched a top-ranked golf game on Roblox
  - o 100,000 lines of code
  - Peak of 100,000 daily active users and 2,300 concurrent players
  - o Generates \$22,000 gross monthly revenue
- Programmed a custom physics engine
  - Coded a custom heightmap-based physics engine from scratch to replace Roblox's default system, achieving far more accurate ball-surface interactions (friction, spin, and collisions)
  - Achieved smoother, more stable gameplay across devices by eliminating ball tunneling glitches and frame rate drops inherent to Roblox's default physics system
- Developed golf course environments in Blender
  - 3D Modeled fairways, roughs, hazards, landscapes, and greens with optimized topology and triangle count, delivering significantly smoother gameplay and reduced memory usage compared to Roblox's built-in terrain system.
  - Applied UV mapping and texture baking to optimize surface detail, improving both performance and visual fidelity
- Engineered backend systems for reliability and scale
  - Programmed robust data storage systems with batching and throttling to ensure reliability and scalability under high player load
  - Optimized client-server communication for consistent gameplay across poor internet connections
- Implemented security and player engagement systems
  - Built a custom anti-cheat system to ensure fair play in multiplayer competitions
  - Analyzed player data and feedback to guide updates, boosting average playtime by 25% in a single update
- Created accurate and engaging golf simulation mechanics
  - Designed innovative swipe-based swing controls that mimic real-life golf, where shot success depends on both speed and straightness of the swing
  - Enabled players to shape shots with curve and spin, adding skill depth beyond other established golf games that relied on simple "hold a button" mechanics—resulting in player counts over 2000% higher

Bay Club Courtside, Los Gatos, CA

- Instruct players of all ages and skill levels
  - Lead private and group lessons for juniors and adults
  - o Run clinics, camps, tournaments
- Coach tennis teams
  - o Build teamwork, discipline, sportsmanship, and confidence on and off the court
  - o Guide junior players in developing both technical skills and character