Rafael Padilla Perez

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EDUCATION

- **San Jose State University** — San Jose, CA
  Bachelor of Science - Software Engineering; GPA: 3.54; Cum Laude. — *July 2016 - June 2020*

SKILLS

- **Languages**: Python, C/C++, C#, GLSL, HLSL, MEL, HTML/CSS/JS, Java.
- **Frameworks**: Qt, PySide, USD, OpenGL, CMake.
- **Tools**: Maya, Blender, Houdini, Renderman, Unity, Unreal, Git/Github, Zbrush, Substance, Perforce, Jira.

EXPERIENCE

- **The Walt Disney Company** — Lake Buena Vista, FL
  Disney College Program Intern — *Aug. 2024 - Feb. 2025*
  - **Responsibilities**: Assist in park arrival at Disney's Hollywood Studios, Walt Disney World.
  - **Results**: By managing electronic biometric touch points, assist daily in the admission of the **30,000+** guests entering the park, while ensuring a safe and welcoming environment.

- **SJSU Research Foundation** — San Jose, CA
  Research Lead — *Feb. 2022 - May 2024*
  - **Responsibilities**: Devised a VR framework for STEM College-Level Education.
  - **Results**: Created two VR interactive 3D laboratory environments, now used by **200+ students** per semester. Observed an **82.3%** increase in learning and retention during research trials. Co-authored manuscript, pending publication.
  - **Languages & tools**: Unity Engine, C#, Meta Quest II.

- **Playroom** — Palo Alto, CA
  Game Developer Intern — *Jun. 2023 - Aug. 2023*
  - **Responsibilities**: Produced 3D web-based, multiplayer video game.
  - **Results**: Assembled the game "RollOut" within a 2-month deadline. Reached **5000+** players since launch. Created a Blender tool with Python for level design, reducing iteration time by **90%**.
  - **Languages & Tools**: Python, Blender, HTML/CSS/JS, React.js

PROJECTS

- **Prim**: Maya/Blender Plug-In, 3D Primitive Management
  - Engineered plug-in that enables artists to name and save scene meshes as primitives, curate 3D primitive libraries, instance them in new projects, and export them using a custom .prim file format for sharing among users.
  - **Languages & Tools**: Qt, PySide6, Maya, MEL, Blender, Python.
- **Taka Taka**: Steam-Released Rhythm Video Game
  - Led team of 8 developers. Reached **1500+ wishlists** and **300+ sales**. Fabricated "TakaMaker," a Unity-based tool that shortened the beatmap creation process by **60%**.
  - **Languages & Tools**: C#, HLSL, Unity Shader Graph.
- **Jelly Engine**: 3D Game Engine for Soft Body Physics
  - Architected a game engine as graduation thesis. Optimized soft body solver, reaching **120+ FPS** with meshes **up to 1000 triangles**. Implemented custom subsurface scattering GLSL shader following the Oren-Nayar lighting model.
  - **Languages & Tools**: C/C++, CMake, OpenGL, GLSL.

LEADERSHIP EXPERIENCE

- **SJSU ACM SIGGRAPH Student Chapter** — San Jose, CA
  President — *Nov. 2023 - May 2024*
  - Re-founded and re-recognized the university's dormant SIGGRAPH student chapter, recruiting and managing a **6-member cabinet**. Organized events, workshops, and activities, increasing membership **from 0 to 250+**.
  - Secured over **$1500** in club funding to sponsor 10 club members for the Game Developers Conference (GDC). Established partnerships with industry leaders like Riot Games, and Pixar.

- **Game Development Club at SJSU** — San Jose, CA
  President — *Jul. 2022 - Aug. 2023*
  - Led 14-member cabinet to oversee a **1,000+ member club** with a semester-long game production program. Mentored 8 game teams, with 2 shipping on Steam. Organized Global Game Jam twice for San Jose/Bay Area region.
  - Managed recruitment, outreach, workshops, tutorials, and events. Helped sponsor 18 GDC club member attendees by raising over **$2000** in funding.