# Rafael Padilla Perez

Portfolio: rafagamedev.com

Github: https://github.com/Rafapp

#### EDUCATION

# San Jose State University

San Jose, CA

Bachelor of Science - Software Engineering; GPA: 3.54; Cum Laude.

July 2016 - June 2020

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#### 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.
- $\circ$  **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

- $\circ\,$  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.
- o Languages & tools: Unity Engine, C#, Meta Quest II.

## Playroom

Palo Alto, CA

Game Developer Intern

Jun. 2023 - Aug. 2023

- o 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%.
- $\circ\,$  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.
  - o 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.
  - $\circ\,$  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.