ALEJANDRO ZAPATA ACOSTA

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EDUCATION

B.S. in Computer Science *Expected May 2019*
Loyola Marymount University, Los Angeles, CA GPA: 3.84
Minor: Pure Mathematics, Animation Dean's List

RELEVANT COURSES: Data Structures, Algorithms, Multivariable Calculus, Intro. 3D Animation**,** Programming Languages, Interactive Animation (UE4), Game Design (Unity), Computer Graphics**,** Interaction Design, Motion Capture/Facial Capture, Artificial Intelligence, Software Engineering Lab, Linear Algebra, Databases, Computer Networks

SKILLS

Technical experience with: Python, Java, JavaScript, C++, C#, Photoshop CS6, Maya, Blender, Unreal Engine 4, Unity, Motion Builder, Faceware Analyzer, OpenGL, React JS.
Languages: Bilingual in English and Spanish (Written and Verbal), beginner Japanese (Written and Verbal).

RELEVANT EXPERIENCE

K'two (LMU CS Senior Thesis) | Los Angeles, CA *February 2019 – Present*
Technical Director
Game development senior thesis project. WIP build here: http://justinkyletorres.com/ktwo-webgl-sandbox/.

- Communicated with artist, designer, and programmers in order to achieve and understand each other's goals and concerns with integrating assets into the game.
- Managed and maintained lists of assets required and their status as they moved through development via a custom asset development pipeline.

Summer Undergraduate Research Program | Los Angeles, CA *May 2018 – July 2018*
Researcher

- Designed, pitched, and developed own research project along with faculty member Dr. Andrew Forney.
- **DunGen** is a game development tool utilizing modern causal inference tools as applicable to procedural role-playing game dungeon generation. DunGen generates random but coherent dungeon layouts for use in development or design.

Heartwired (LMU ANIM Senior Thesis) | Los Angeles, CA *February 2018 – May 2018*
Assistant Technical Director

- Created script to automatically save and increment current Maya scene to facilitate proper version control.
- Created script to default the file explorer to a custom directory.
- Rigged a quadruped pig character with IK and FK controls.

PRESENTATIONS

Southern California Conferences for Undergraduate Research *November 17, 2018*
Causal Inference in Procedural Dungeon Generation *github.com/CapnSquirrel/DungeonPCG*

- Explored and implemented Bayesian Network causal inference as a procedural content generation method for random role-playing game dungeon generation.
- Generated 2D representation for dungeon layout based on generated output

ACCOMPLISHMENTS AND AFFILIATIONS

SURP research grant
Social Justice Scholarship (Full-tuition)
International Collegiate Programming Contest, Top 20 in SoCal
Outstanding Freshman Student Award – Computer Science

Kyodai (Japanese Culture Club), Treasurer
Association for Computing Machinery, Co-President
Resilience (Immigration Social Justice), Treasurer
Esports Club, Treasurer