

Diego Galvez

Residence: Bastrop, TX

SUMMARY SKILLS, LANGUAGES, AND TECHNOLOGIES

Mathematics and Math Design

- Exceptional level of probability and combinatorics to make calculations of slot payouts in Microsoft Excel.
- Design game rule algorithms/logic and construct math elements of slots.
- Achieve competitive and fun game balance while maintaining games within casino regulations.
- Achieve high entertainment value using mathematics.

Game Programming

- Write code mainly using C# to program game behavior.
- Track and report key game statistics via Monte Carlo simulations, such as probability distributions, frequencies of events, volatility, means and medians, etc.

Other Skills/Languages/Technologies

- Experienced with Unity, Python, PHP, Java, Matlab, and web development.
- Ability to use technologies to build complex tools, such as simulators, automation tools, etc.
- Strong knowledge of physics and the mathematics applied to physics, such as linear algebra, vector calculus, and differential equations. In fact, my master's thesis was on enhancing matrix computations through Matlab.
- A math educator with over a decade of experience tutoring engineering and science students.

EMPLOYMENT

Senior Mathematician

Feb 2020 – present

Take-Two Interactive (Zynga Division)

- Owner of all slot machine math in Game of Thrones Slots Casino.
- Create competitive mobile slots math at a fast pace.
- Debug and collaborate with software engineers to ensure server logic functionality.
- Collaborate with data analysts and product managers to help make decisions and monitor live casino RTP.

Mathematician II

Sep 2018 – Jan 2020

Konami Gaming

- Create competitive math of casino video slot machines.
- Write and submit math documentation to casino regulators.
- Collaborate with the creation of game rule ideas.
- Math creator of The Great Wilds, Bill\$ & Thrill\$, Sticky Riches Deluxe, and Majestic Moon Triple Sparkle.
- In charge of 3 enhancements of successful Konami titles, as well as 4 other new titles under development.

Various Math and Physics Teaching Jobs/Volunteering

2012 - present

UC Berkeley, Saddleback College, C2 Ed., Cal Poly Pomona, private tutoring, etc.

EDUCATION

California State Polytechnic University, Pomona

- Master of Science in Mathematics (GPA: 3.93)

University of California, Berkeley

- Bachelor of Arts in Mathematics (GPA: 3.70)