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History of Math

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Dean Hickerson

[24, 446, 1973, 2017, 1, 2, 0]

Wikipedia: https://www.conwaylife.com/wiki/Dean_Hickerson

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Dean Hickerson is an interesting mathematician who has dedicated his career to a particular field of study. He is known as a Life Enthusiast—someone who has made contributions to Conway's Game of Life. According to wikipedia, Conway's Game of Life is a cellular automation; it is a zero-player game where "its evolution is determined by its initial state, needing no input from human players." It is played by creating an initial state and observing how the game responds.

This game is a complex model which utilizes patterns, neighborhoods, arrays, oscillators, and much more. It has introduced a whole new field of mathematical research which combines algorithms, number theory, physics, computer science, etc. as a way to observe the natural evolution of patterns.

Hickerson received his Ph.D. from the University of California, Berkeley in 1980, where he completed his dissertation called Splittings of Finite Groups. Since then, he has delved into the world of Life. In 1989, Hickerson spearheaded the first oscillator research program. This was highly successful. He has found many low-period oscillators; some notable ones are the caterer, monogram, and fumarole. The first known period-17 oscillator was found by Hickerson. His list of contributions to the Game of Life is extensive—it goes beyond the realm of knowledge of an average mathematician since it is such a newly discovered field of study. This game is complex and difficult to understand without a strong basis of group theory, number theory, analysis, and algorithms.

Dean Hickerson's dedication to this particular game is a homage to Srinivasa Ramanujan, who was a pioneer in modern day mathematics. Therefore, it makes sense that Hickerson attended the Ramanujan Conference of 1987 because, without Ramanujan, the Game of Life would have never been discovered.