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## **Computer Graphics, Video Games, and Gamification Impacting (Re)Habilitation, Healthcare, and Inclusive Well-Being**

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# Encyclopedia of Computer Graphics and Games

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Newton Lee  
Editor

# Encyclopedia of Computer Graphics and Games

With 906 Figures and 116 Tables

 Springer

*Editor*

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*To all my students, past, present, and future!*

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## Preface

The *Encyclopedia of Computer Graphics and Games* (ECGG) is an authoritative reference work covering the history, technologies, and trends of computer graphics and games catered to industry professionals and academic communities worldwide. The breadth and depth of topics covered by the encyclopedia benefit a wide diversity of readers including researchers, practitioners, teachers, and students who seek general as well as specific knowledge in computer graphics and games.

Los Angeles, USA  
November 2023

Newton Lee

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## Acknowledgements

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## About the Editor



**Newton Lee** is the founding president of the 501(c)(3) nonprofit Institute for Education, Research, and Scholarships based in Los Angeles, California, a former Disney and Bell Labs engineer, and a 2021 graduate of the FBI Citizens Academy.

Serving as an FBI Ambassador, Prof. Lee expounds on social media, campus safety, student mental health, cybersecurity, and counterterrorism as portrayed in the highly acclaimed Total Information Awareness book series published by Springer Nature. The Total Information Awareness trilogy has garnered rave reviews from *Newsweek*, *The Daily Beast*, *ACM Computing Reviews*, *AdWeek*, and *Choice Magazine*, among others. Veteran Staff Sergeant Andrew Price of the United States Air Force (USAF) remarked, “I am inspired by the prospect of world peace. I’d fully recommend following the author’s steps, reaching beyond our borders, making friends outside our norm, and helping to foster world peace and a better tomorrow.”

Prof. Lee has co-developed over 100 online games at The Walt Disney Company, and 12 bestselling and award-winning interactive titles including *The Lion King Animated Storybook* and *Winnie the Pooh and the Honey Tree* that were featured in the *Billboard Magazine*. He has also executive produced original songs that have played on *American Idol* and charted on US *Billboard*, UK *Music Week*, and US *iTunes HOT 100 (Electronic)*.

He earned a B.S. and M.S. in Computer Science from Virginia Tech as well as an A.S. in Electrical Engineering and an honorary doctorate in Computer Science from Vincennes University. He has

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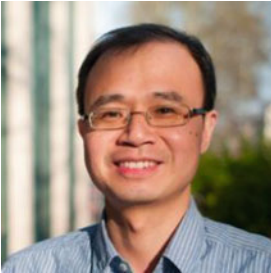


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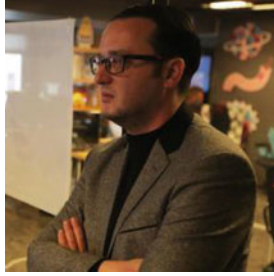
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