Cale Plut, M.F.A., Ph.D.

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Personal Statement

I am an interdisciplinary game music technology artist, designer, and researcher. My research touches on elements of music theory, composition, perception, and performance, game design and perception, and applied AI. With a professional background as a music composer and performer, my research is focused on designing and applying co-creative tools - using emerging technologies to assist artists and extend the creative process.

Current position

Sessional instructor, School of Interactive Arts and Technology, Simon Fraser University

Areas of specialisation

Generative music, Game music, Game design, Music perception, Game perception

Education

2022 **PHD in Interactive Arts and Technology, Simon Fraser University**
Thesis title: *Application and evaluation of affective adaptive generative music for video games*
Thesis supervisor: Philippe Pasquier

2017 **MFA in Contemporary Arts, Simon Fraser University**
Thesis title: *The Audience of the Singular*
Thesis supervisor: Arne Eigenfeldt

2015 **BFA in Music, Simon Fraser University**

Grants, honours & awards

2022 Helmut and Hugo Eppich Family Graduate Scholarship, **$1,000**
2022 The Westak International Sales Inc. Graduate Scholarship, **$700**
2021 Travel and Minor Research Award, SFU, **$1369**
2021 Graduate Fellowship, SFU, **$7,000**
2021 President's PhD Scholarship, **$7,000**
2021 Three Minute Thesis Prize, **$150**
2020 MITACS Research Training Award, **$6,000**

2020	Helmut and Hugo Eppich Family Graduate Scholarship, **$1,000**
2019	Graduate Fellowhip, SFU, **$3,250**
2019	Travel and Minor Research Award, SFU, **$1,000**
2019	Graduate Fellowship, SFU, **$6,500**
2018	Graduate Fellowship, SFU, **$3,250**
2017	Travel and Minor Research Award, SFU, **$1,000**
2016	Travel and Minor Research Award, SFU, **$500**
2015	Special Graduate Entrance Scholarship, SFU, **$2,000**
2015	The REDFM 93.1 Annual Music Scholarship, **$3,000**

Publications

JOURNAL ARTICLES

| 2022 | **Plut, C.** and Pasquier, P. and Ens, J. and Bougueng, R. (2022), "The IsoVAT corpus: Parameterization of musical features for affective composition". *Transactions of the International Society for Music Information Retrieval* |
| 2020 | **Plut, C.** and Pasquier, P. (2020), "Generative music in video games: State of the art, challenges, and prospects". *Entertainment Computing* |

In progress

| 2022 | **Plut, C.** and Pasquier, P. and Ens, J. and Bougueng, R. (2022) "PreGLAM: A Predictive, Gameplay-based Layered Affect Model". Submitted to *IEEE Transactions on Games* |

CONFERENCE PROCEEDINGS

2022	**Plut, C**. and Pasquier, P. and Ens, J. and Bougueng, R. (2022), "PreGLAM-MMM: Application and evaluation of affective adaptive generative music in video games". In *Foundations of Digital Games*
2020	**Plut, C.** and Pasquier, P. (2020) "LazyVoice: A multi-agent approach to fluid voice leading". In *International Computer Music Conference*
2019	**Plut, C.** and Pasquier, P. (2019) "Music Matters: An empirical study on the effects of adaptive music on experienced and perceived player affect". In *IEEE Conference on Games*

Research positions

2020–2022	**Research Assistant**, School of Interactive Arts and Technology, Simon Fraser University Performed musical composition, arrangement, and analysis of input and output of a generative music system
2019	**Research Assistant**, Simon Fraser University Collaborated with industry partner Inscape to research implementing generative music into a VR game
2015–2017	**Research Assistant**, Simon Fraser University Explored techniques of expressing recorded soundscapes in traditional western music notation for choral performance
2016–2017	**Research Assistant**, Simon Fraser University Assisted in migrating a generative animation program to Unity for use in a holographic display

Teaching

2022	**Sessional Instructor**, School of Interactive Arts and Technology, Simon Fraser University IAT 210: Introduction to Game Studies. 152 students. Delivered 2 hour lectures and supervised 1 hour activities. Redesigned and updated materials. Supervised two Teaching Assistants.
2022	**Sessional Instructor**, School of Communications, Simon Fraser University CMNS 321: Cultural Production of Popular Music. 75 students. Delivered 3 hour lectures, updated syllabus and created new lecture materials. Marked major projects. Supervised one Teaching Assistant.
2022	**Teaching Assistant**, School of Interactive Arts and Technology, Simon Fraser University IAT 210: Introduction to Game Studies. 152 students. Marked class assignments, coordinating with other teaching assistant.
2019, 2021	**Teaching Assistant**, School of Interactive Arts and Technology, Simon Fraser University IAT 340: Sound Design. 85 students. Led technical tutorials, marked assignments.
2017–2018	**Music Director**, Broadway Edge Studio. Musically directed and instructed performers at a performing arts studio for students age 10–18

Service to the profession

2022	**Co-editor**, Journal of Creative Music Systems, AI in Music Creation special issue

Artistic practice

2017, 2019, 2022	**Pianist**, Theatre Under the Stars Accompanied rehearsals and performed in pit orchestra for live performances
2010–2013	**Pianist**, Holland America Line Performed with live ensembles in multiple popular and classical music genres onboard luxury cruise ships

Skills

PRIMARY

Music theory and musicology, Quantitative and quantitative research, Applied computational creativity, Game design, Music composition

MUSIC/AUDIO

Finale, Ableton Live, REaper, Pro Tools, Elias, FMOD, Wwise

GAME DEVELOPMENT AND PROGRAMMING

Unity, Unreal, Godot, C#, Python, Java, Max 8

OTHER

Critical theory, Music performance, Piano, Applied ML/DL