

Evolutionary Music

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Abstract—*CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.

Index Terms—music, evolution, evolutionary algorithm

I. INTRODUCTION

Music composition involves innovation, creativity and sense of melody. Through this project, we hope to discover how music can be composed without the involvement of musicians. Taking motivation from the paper we presented for our first presentation, we will try to utilize our knowledge of evolutionary algorithms to compose melodies.

II. TECHNICAL BACKGROUND

Evolutionary Algorithms as inspired by the process of biological evolution work towards optimization. Using concepts of reproduction, mutation, selection and recombination on candidate solutions (chromosomes), evolutionary algorithms (also called genetic algorithms) solve an optimization problem. Fitness function determines how good the candidate solution is and works by evolving the solutions to obtain the optimum solution to the problem.

III. RELATED WORK

How other people have done it, What problems they faced

IV. METHODOLOGY

Our approach

V. EXPERIMENT AND RESULTS

How we tested

What benchmarks we used to evaluate results

Dataset used

Experiment settings

Results and comparison if done

Analysis of results (whether they are good; if they are bad, then in what situations are they bad)

VI. CONCLUSION

Including future work

ACKNOWLEDGMENT

What resources we have used and who has helped us

REFERENCES

Please number citations consecutively within brackets [1]. The sentence punctuation follows the bracket [2]. Refer simply to the reference number, as in [3]—do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] was the first . . .”

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