

Computational Intelligence

Quiz A

Last meeting we briefly discussed how one might go about using CI to generate musical pieces similar to J.S. Bach. One approach might involve a two step process,

- Getting CI to know a Bach piece when it hears it. Lets call this CI_1 .
- Evolving a CI to write the pieces using the CI result above as the fitness function. Lets call this CI_2 .

Questions

1. What would the representation be for potential solutions of CI_1 ?
2. What would the representation be for potential solutions of CI_2 ?
3. For CI_1 what pieces would you have it 'listen' to? Bach only, so it could become an expert? A mixture of different pieces?
4. What would your variation technique(s) be for CI_1 ?
5. What would your variation technique(s) be for CI_2 ?
6. What would your fitness function be for CI_1 ?
7. What would your fitness function be for CI_2 ?