



Personalised AI with small data for artists

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01

Algorithmic Pattern + Live Coding


```
2 $ spin 2
3 $ stitch "1(<3 5>,8,<0 2 3>)" (sound "kick:4") (sound "hc")
4 # room 0.12 # orbit 0
5
6 d2
7 $ struct "1 0 0 1 0 1 1 0 " $ sound "bmcp"
8 # orbit 1
9
10 d3
11 $ sew (iter 4 "1 0")
12 ( n "0 .. 7" # sound "cps1")
13 (n "0 .. 7" # sound "cpu")
14 # orbit 2
15
16 d4
17 $ stitch (binary "<127 63>") (sound "hjdsynth:12") (sound "hjdsynth")
18 # cutoff (range 200 4000 $ slow 8 $ saw)
19 # resonance (range 0.1 0.2 $ slow 8 $ saw)
20 # note (choose [5,9,0, 12, 16,17, 19])
21 # room 0.89 # orbit 3
```

Live Coding Practices:
Code as an artists' material



02

Small Data for Co-creation

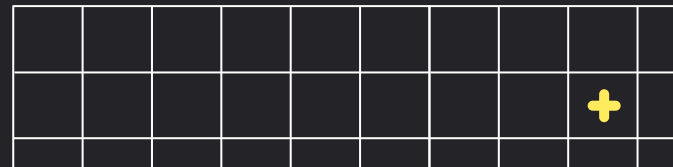
Why small data approaches?

- Dataset understood as the primary mechanism by which a human creator specifies the content a machine should generate
- Adds layer of understanding the the effects of the model's behaviour
- Trained faster and less computationally expensive



Reclaiming Power²

- Allows artists to bypass large corporations
- Diversion from norms that perpetuates specific cultural paradigms
- Allow for artistic progress, without reliance on current resource intensive AI practices





PATTERN PARADE
BY
MOSAICK



Integrating Small Data AI in Teaching/Research



Pedagogy

In my lectures and workshops, I have begun integrating this practice, through discussing theories and hands on exercises training interactive ML models



PhD Research

In my research, I created a collaborative agent in live coding, which uses this small data approach. The work has been disseminated at various conferences, which has given me the chance to gain insights into integrating



Related Publications

Wilson, E., Fazekas, G., Wiggins, G. *On the Integration of Machine Agents into Live Coding.*

Wilson, E., Deva, S., Mika, S., Alex, M. and Juan Felipe, A.G., 2023. *MosAlck: Staging Contemporary AI Performance-Connecting Live Coding, E-Textiles and Movement.*

Wilson, E., Lawson, S., McLean, A., and Steward, J., 2021. *Autonomous Creation of Musical Pattern from Types and Models in Live Coding*





Thanks
for listening 😊



References

- 1) TECKS, A., PESCHLOW, T. and VIGLIENSONI, G., 2024. Explainability Paths for Sustained Artistic Practice with AI.
- 2) Vigliensoni, G., Perry, P. and Fiebrink, R., 2022. A small-data mindset for generative AI creative work.
- 3) Sawyer, R.K., 2021. The iterative and improvisational nature of the creative process. *Journal of Creativity*, 31, p.100002.

