



Accelerating Uproot With AwkwardForth



IRIS-HEP Fellow - **Aryan Roy** (Manipal Institute of
Technology)
Mentor - **Jim Pivarski** (Princeton University)

About The Project

AwkwardForth is a DSL (Domain Specific Language) built into, and shipped with Awkward Array.

Works in some ways like assembly, only data structure available is a stack of integers.

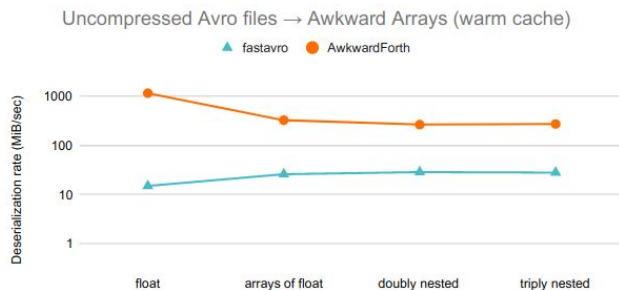
This is what
Forth code looks
like.



```
0 do
  data zigzag-> stack
  dup offsets2 +<- stack
  data #f-> content
  data b-> stack drop
loop
```

Expected Outcome (arXiv:2102.13516)

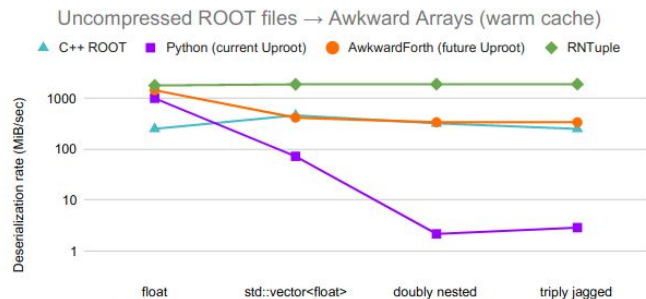
Awkward Array has an Avro reader faster than fastavro across the board!



Achieved!
(PR#1491)

Adding a Forth Based Avro Reader #1491

Merged aryan26roy merged 85 commits into main from aryan-forth-reader 3 days ago



Up next :-)