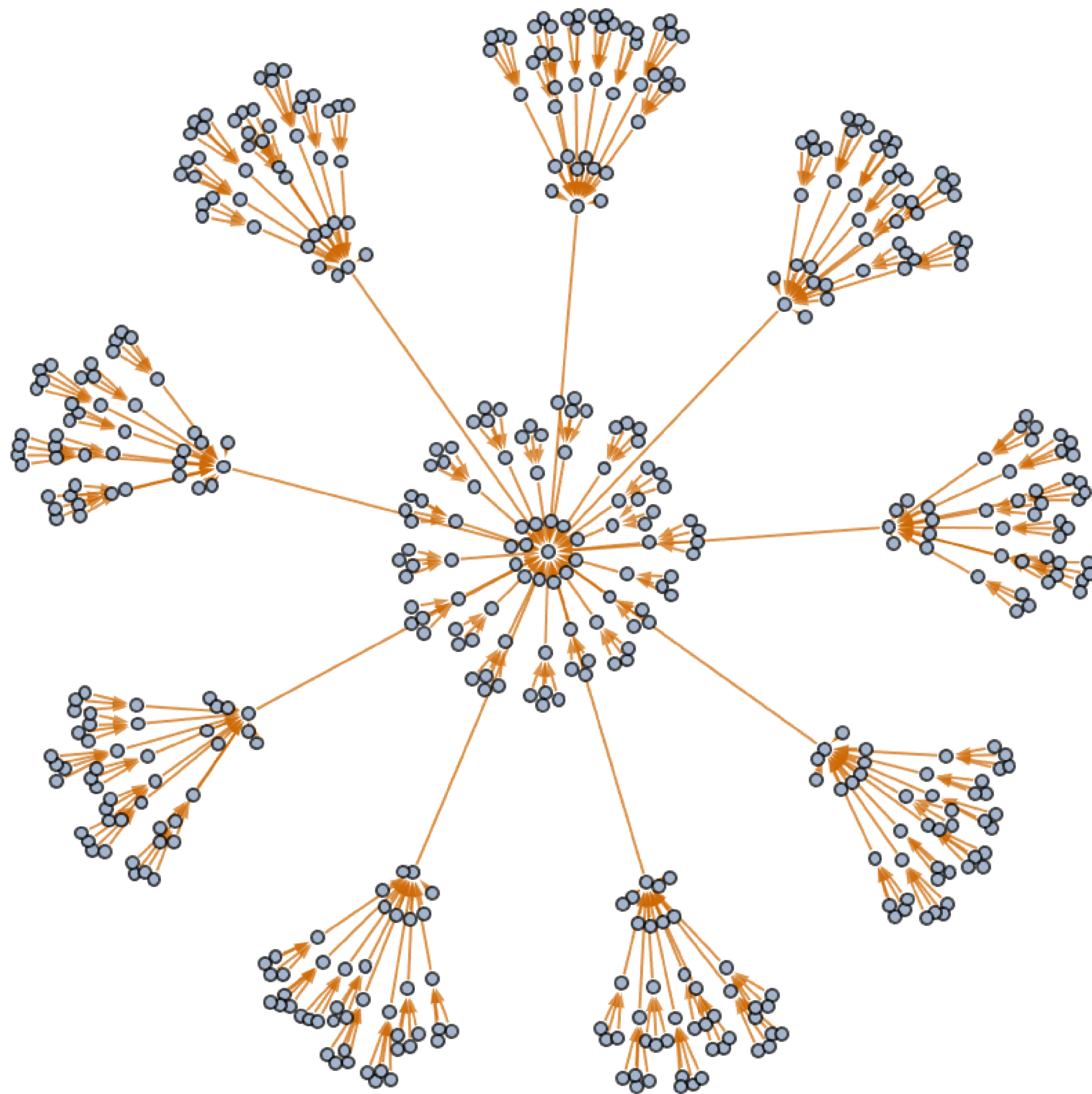


Exploring Call Graphs of Nestedly Recursive Functions

Thomas Adler (**Mentor:** Brad Klee)



GOAL

Find simple functional forms that exhibit complex behaviors. Focus on the call graphs of nestedly recursive functions. Implement a stack-based recursive function from scratch.

SUMMARY OF RESULTS

We developed shifters that apply transformations to the decimal digits of an input integer. We use these shifters in our nestedly recursive functions and find fascinating patterns that resemble branches, flowers and corals.

FUTURE WORK

Optimise our implementation of the stack-based recursive function in terms of memory allocation and runtime, and explore even simpler arithmetic operations.

