Proposal One-Pager

Nicholas Adams Judge, PhD

What

A research and AI software stack for systematic trading, capable of benefitting from inputs - data and algorithms - at scale.

That scale is sufficient not just for a fund's internal use, but for a decentralized network of scientists and quant developers. A fund dogfooding the AI system could thus become the progenitor of, and participant in, a decentralized fund.

The initial focus is on crypto assets over intra-day timelines. The system grows in accuracy as more asset classes are added.

Why

The multi-year development cycle of systematic strategies prevents their easy scalability. By creating a system that intelligently assembles and assesses *components* of forecasts:

1. The scientific research process is architected towards exponential progress
2. Tasks within that process are rendered so discrete and easily-organized that large, even decentralized, teams can work together effectively

How

A binary genetic algorithm (GA) is designed to assess features and algorithms simultaneously while minimizing computational costs. This organizes a constantly-evolving universe that is a scaled version of the scientific research method.

Internal Scalability → Decentralizability

The process is, simply, evolution. If you want to contribute a gene - data or algorithm - to the gene pool, you can. If it is good, it reproduces. If not, it dies.

Why Now

This project would not be technologically feasible five years ago.

An indirect outgrowth of my dissertation, finished in 2013, full time work began two years ago. The remaining roadmap is 4-6 months long. Funding is appropriate at this point because efficacy is related to scale.

Who

A political economist whose dissertation focused on GARCH models and research methodology, I have worked full-time in crypto since 2016.