

Matthew Temple software résumé

matthew@triangledirt.com

About

- I have twelve years of professional design and development experience specializing in intelligent software
- I live with bipolar disorder, schizophrenia, tardive dystonia, and OCD. I am retired from corporate work
- I made <u>alib</u>. Use my open source intelligence for free and pay me by the hour to help you get started

My work

- I invented AI algorithms that extend genetic algorithms using original techniques like 3d crossover
- I discovered many new types of 1-dimensional cellular automata, extending the work of John von Neumann and Stephen Wolfram
- I invented a cultural genetic algorithm which uses geographic environments to improve genetic algorithm performance by introducing the dynamics of natural partitioning of solutions

Languages

- C
- C++

Swift

Experience

Pragmatic

- Invented, designed, and developed AI tools for classifying gameplay data.
 Utilized genetic algorithms, Bayesian methods, and exotic evolutionary techniques that I invented
- Using my <u>evolution of culture</u> concepts, created an embedded system for replacing traditional interview-style assessments with action-based assessments
- Invented a generalized inference system
- Designed and implemented a more like this search engine
- Worked with Harvard University scientists to make software that measured metacognition in RPG gamers
- Put in place automated measurement of cyclomatic complexity to improve code testability and reliability
- Wrote a regular expression engine extending regular expression syntax and using fewer than 1,000 lines of code

LexisNexis

- Invented, designed, and developed realtime product monitoring. Used 24/7 in the LN command center to monitor software and hardware and proactively suggest when new resources are needed before performance problems occur
- Wrote parts of lexis.com, a legal database
- Solved performance problems by re-architecting the server model of lexis.com. Circumvented unavoidable memory growth problems by implementing periodic server quiesce and restart

SIG

- Created the ability to have a cross-platform work area so developers could work from Sun and Windows machines in the same source tree
- Created a graphical include file dependency analyzer to help developers include only the files they needed
- Enhanced build system to aid developers and speed up build times for a large source tree

Algorithms

- teoc/simple—the evolution of culture
- cor3—search/optimization algorithm
- bios/eos—cultural genetic algorithms
- cellular automata—ca types I discovered
- mbin—container data structure

Code

- xtools—containers and networking
- inhesion/alt—genetic and cellular programming
- talk anonymous—anonymous chat server
- minigen—a small/fast genetic algorithm
- server—a <u>simple interface</u> to a <u>complex object</u>

More

Alife screensaver

I wanted to make the shortest possible alife screensaver for my terminal <u>compact</u> / <u>human</u>. Note how frame-by-frame animation is accomplished using nothing but the standard library in much the way a film projector works

Dot oh language system

It's a way to write, type, pronounce, display. Dot oh cares about things being simple, things making sense. You can learn dot oh in stages, use it in your programs. This is the <u>dot oh specification</u>. It defines dot oh

A key feature of dot oh is it allows informal, continually evolving natural languages and a formal, structured language to live together in the same document, interleaved arbitrarily by the reader

Novels

I've written <u>40+ books</u>: novels, novellas, memoirs, nonfiction, plays, screenplays, and a collection of short stories