

spencer tipping

[spencer.tipping@gmail.com](mailto:spencer.tipping@gmail.com)

// open source : [github.com/spencertipping](https://github.com/spencertipping)

2009 - present

data science      GPS multipath error + satellite tracking  
                      Audio spectral visualization  
                      3D trilateration for cell phones

[spencertipping.com/gps](https://spencertipping.com/gps)  
[spencertipping.com/niaudio](https://spencertipping.com/niaudio)  
[spencertipping.com/sonar](https://spencertipping.com/sonar)

infrastructure    ni: fast data processing + visualization  
                      Caterwaul: a Javascript recompiler  
                      JIT in machine code  
                      Self-modifying Perl  
                      An improved cd command for bash  
                      Lisp in bash

[spencertipping.com/ni](https://spencertipping.com/ni)  
[spencertipping.com/caterwaul](https://spencertipping.com/caterwaul)  
[spencertipping.com/canard](https://spencertipping.com/canard)  
[spencertipping.com/smperl](https://spencertipping.com/smperl)  
[spencertipping.com/cd](https://spencertipping.com/cd)  
[spencertipping.com/blambda](https://spencertipping.com/blambda)

classes/tutorials    How to write a UNIX shell  
                          How to write a JIT compiler  
                          Javascript in Ten Minutes  
                          Information theory in Ten Minutes

[spencertipping.com/shellhowto](https://spencertipping.com/shellhowto)  
[spencertipping.com/jithowto](https://spencertipping.com/jithowto)  
[spencertipping.com/js10](https://spencertipping.com/js10)  
[spencertipping.com/it10](https://spencertipping.com/it10)

/ Factual : [factual.com](https://factual.com)

2012.08 - 2018.05

research            Fourier transform for geodata forensics  
                      Statistical fraud detection  
                      Polygon compression

[spencertipping.com/fraud1](https://spencertipping.com/fraud1)  
[spencertipping.com/fraud2](https://spencertipping.com/fraud2)  
[spencertipping.com/polycomp](https://spencertipping.com/polycomp)

infrastructure    Data pipeline performance  
                      Fast bitwise geohash encoding  
                      Fast indirect sorting in Java  
                      nfu: fast medium-data processing

[spencertipping.com/pipeline](https://spencertipping.com/pipeline)  
[spencertipping.com/geohash](https://spencertipping.com/geohash)  
[spencertipping.com/javasort](https://spencertipping.com/javasort)  
[spencertipping.com/nfu](https://spencertipping.com/nfu)

global places     Ontological bias + correction for categories  
                      Fast entropy-based entity resolution

geopulse          Core processing pipeline (Hadoop + Clojure)  
                      Insights processing pipeline (Hadoop + ni)  
                      Automatic fraud detection + blacklisting  
                      Cryptographically secure differential privacy  
                      Behavioral model validation + analysis

engine            Wavelet-based accelerometer parsing  
                      Place attachment QA + training data  
                      Competitive product strategy

/ Google : [google.com](https://google.com)

2011.11 - 2012.04

tech talks        V8 JIT performance  
google groups    Accessibility design + implementation

[spencertipping.com/v8perf](https://spencertipping.com/v8perf)

/ Social Media Networks : [socialmedia.com](https://socialmedia.com)

2010.01 - 2011.11

creative          Visual editor  
analytics        Internal dashboards + prototyping processes

[spencertipping.com/vedit](https://spencertipping.com/vedit)

/ BorderStylo

2009.01 - 2009.09

research        Content anchoring  
frontend        Tech lead for frontend team

[spencertipping.com/capatent](https://spencertipping.com/capatent)  
[spencertipping.com/jstc](https://spencertipping.com/jstc)

/ Truman State University : [truman.edu](https://truman.edu)

2005-2009, dropout, Math+CS 3.94/4 GPA

research        Genetic simulation + statistics  
                      Airplane boarding + international first place

[spencertipping.com/2008nsf](https://spencertipping.com/2008nsf)  
[spencertipping.com/2007mcm](https://spencertipping.com/2007mcm)